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NEWS 1		Web Page for STN Seminar Schedule - N. America
NEWS 2	APR 04	STN AnaVist, Version 1, to be discontinued
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NEWS 4	APR 28	EMBASE Controlled Term thesaurus enhanced
NEWS 5	APR 28	IMSRESEARCH reloaded with enhancements
NEWS 6	MAY 30	INPAFAMDB now available on STN for patent family searching
NEWS 7	MAY 30	DGENE, PCTGEN, and USGENE enhanced with new homology sequence search option
NEWS 8	JUN 06	EPFULL enhanced with 260,000 English abstracts
NEWS 9	JUN 06	KOREAPAT updated with 41,000 documents
NEWS 10	JUN 13	USPATFULL and USPAT2 updated with 11-character patent numbers for U.S. applications
NEWS 11	JUN 19	CAS REGISTRY includes selected substances from web-based collections
NEWS 12	JUN 25	CA/CAplus and USPAT databases updated with IPC reclassification data
NEWS 13	JUN 30	AEROSPACE enhanced with more than 1 million U.S. patent records
NEWS 14	JUN 30	EMBASE, EMBAL, and LEMBASE updated with additional options to display authors and affiliated organizations
NEWS 15	JUN 30	STN on the Web enhanced with new STN AnaVist Assistant and BLAST plug-in
NEWS 16	JUN 30	STN AnaVist enhanced with database content from EPFULL
NEWS 17	JUL 28	CA/CAplus patent coverage enhanced
NEWS 18	JUL 28	EPFULL enhanced with additional legal status information from the epoline Register
NEWS 19	JUL 28	IFICDB, IFIPAT, and IFIUDB reloaded with enhancements
NEWS 20	JUL 28	STN Viewer performance improved
NEWS 21	AUG 01	INPADOCDB and INPAFAMDB coverage enhanced
NEWS 22	AUG 13	CA/CAplus enhanced with printed Chemical Abstracts page images from 1967-1998
NEWS 23	AUG 15	CAOLD to be discontinued on December 31, 2008
NEWS 24	AUG 15	CAplus currency for Korean patents enhanced
NEWS 25	AUG 25	CA/CAplus, CASREACT, and IFI and USPAT databases enhanced for more flexible patent number searching
NEWS 26	AUG 27	CAS definition of basic patents expanded to ensure comprehensive access to substance and sequence information

<12/04/2007> Erich Leese

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 NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,
              AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

 NEWS HOURS    STN Operating Hours Plus Help Desk Availability
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FILE 'HOME' ENTERED AT 11:10:23 ON 15 SEP 2008

=> file reg
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       0.21       0.21

FILE 'REGISTRY' ENTERED AT 11:10:31 ON 15 SEP 2008
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STRUCTURE FILE UPDATES:   14 SEP 2008  HIGHEST RN 1049627-95-3
DICTIONARY FILE UPDATES:  14 SEP 2008  HIGHEST RN 1049627-95-3

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Uploading C:\Program Files\Stnexp\Queries\10561747intermediates.str
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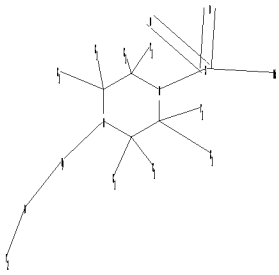
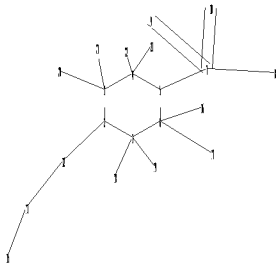




chain nodes :
7 8 9 10 12 13 15 16 17 18 19 20 21 22 23
ring nodes :
1 2 3 4 5 6
chain bonds :
1-18 1-19 2-12 3-20 3-21 4-22 4-23 5-7 6-16 6-17 7-8 7-9 7-10 12-13 13-15
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6
exact/norm bonds :
1-2 1-6 1-18 1-19 2-3 2-12 3-4 3-20 3-21 4-5 4-22 4-23 5-6 5-7 6-16 6-17 7-8 7-9 7-10 12-13 13-15
isolated ring systems :
containing 1 :

G1:Cy,Ak

G2:Cb,Ak

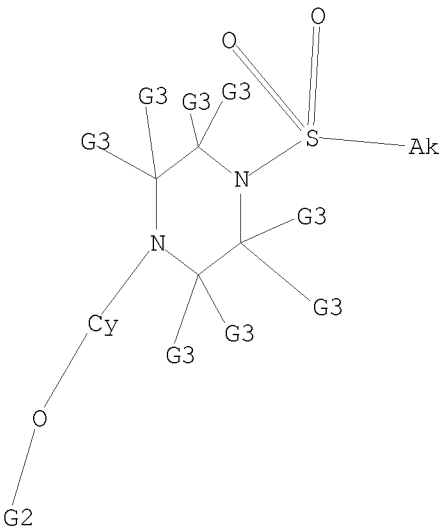
G3:C,H

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS 12:Atom 13:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS 19:CLASS 20:CLASS 21:CLASS 22:CLASS 23:CLASS

L1 STRUCTURE UPLOADED

<12/04/2007> Erich Leese

=> d l1
L1 HAS NO ANSWERS
L1 STR



G1 Cy,Ak

G2 Cb,Ak

G3 C,H

Structure attributes must be viewed using STN Express query preparation.

=> s l1 full
FULL SEARCH INITIATED 11:10:53 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 144921 TO ITERATE

100.0% PROCESSED 144921 ITERATIONS 740 ANSWERS
SEARCH TIME: 00.00.02

L2 740 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	178.36	178.57

FILE 'CAPLUS' ENTERED AT 11:11:00 ON 15 SEP 2008

FILE COVERS 1907 - 15 Sep 2008 VOL 149 ISS 12
FILE LAST UPDATED: 14 Sep 2008 (20080914/ED)

Caplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2008.

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

http://www.cas.org/legal/infopolicy.html

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=> s l2 full
L3          38 L2

=> s l3 and py<2005
      25113076 PY<2005
L4          22 L3 AND PY<2005

=> d ibib abs hitstr tot
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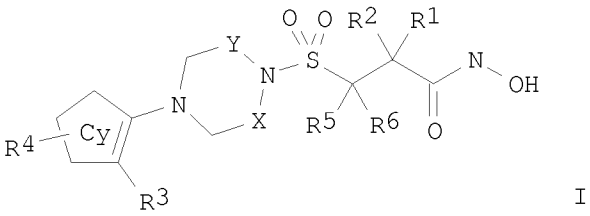
L4 ANSWER 1 OF 22 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:1154688 CAPLUS
DOCUMENT NUMBER: 142:93854
TITLE: A preparation of N-hydroxy-(piperazinylsulfonyl)alkanoic acid amide derivatives, useful as CD23 shedding inhibitors
INVENTOR(S): Owen, David Alan; Watson, Robert John; Allen, Daniel Rees; Sharpe, Andrew; Dyke, Hazel Joan
PATENT ASSIGNEE(S): Celltech R & D Limited, UK
SOURCE: PCT Int. Appl., 53 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2004113312	A1	20041229	WO 2004-GB2638		20040618 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW					
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
AU 2004249496	A1	20041229	AU 2004-249496		20040618 <--
CA 2528317	A1	20041229	CA 2004-2528317		20040618 <--
EP 1641771	A1	20060405	EP 2004-742991		20040618
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR					
JP 2006527754	T	20061207	JP 2006-516449		20040618
US 20060241118	A1	20061026	US 2006-560119		20060517
PRIORITY APPLN. INFO.:			GB 2003-14244	A	20030619
			GB 2003-25834	A	20031105
			WO 2004-GB2638	W	20040618

OTHER SOURCE(S): MARPAT 142:93854
GI



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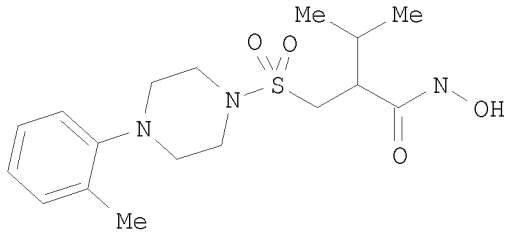


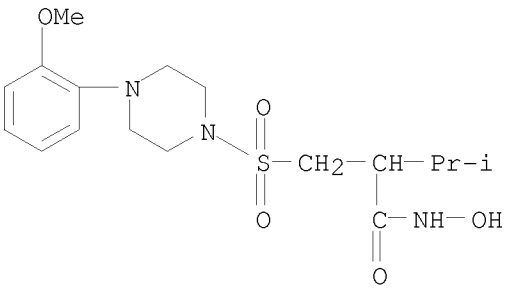
II

AB The invention relates to a preparation of (piperazinylsulfonyl)alkanoic acid amide derivs. of formula I [wherein: Cy is (hetero)aryl; X is (CH2)0-3; Y is (CH2)1-3; R1 is (cyclo)alkyl, (hetero)aryl, or alkylcycloalkyl, etc.; R2 is H or alkyl; R3 and R4 are independently selected from F, Cl, Br, or haloalkyl, etc.; R5 is alkyl; R6 is H or alkyl], useful as CD23 shedding inhibitors (no biol. data). For instance, N-hydroxy-(piperazinylsulfonylmethyl)butyramide derivative II was prepared via amination of 2-chlorosulfonylmethyl-3-methylbutyric acid tert-Bu ester by 1-o-tolylpiperazine and subsequent amidation of the obtained ester by NH2OH.

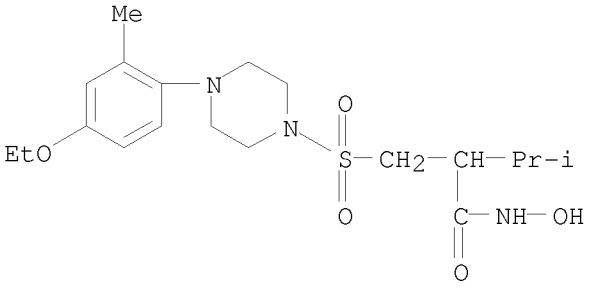
IT 817170-78-8P 817170-82-4P 817170-83-5P
817170-84-6P, 2-Benzyl-N-hydroxy-3-[4-(2-methoxyphenyl)piperazin-1-ylsulfonyl]propionamide 817170-88-0P 817170-89-1P,
2-Benzyl-3-[4-(4-ethoxy-2-methylphenyl)piperazin-1-ylsulfonyl]-N-hydroxypropionamide
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of (piperazinylsulfonyl)alkanoic acid amide derivs. useful as CD23 shedding inhibitors)

RN 817170-78-8 CAPLUS

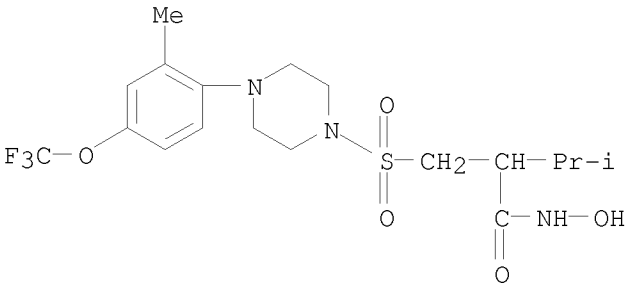
CN Butanamide, N-hydroxy-2-[[[4-(2-methoxyphenyl)-1-piperazinyl]sulfonyl]methyl]-3-methyl- (CA INDEX NAME)



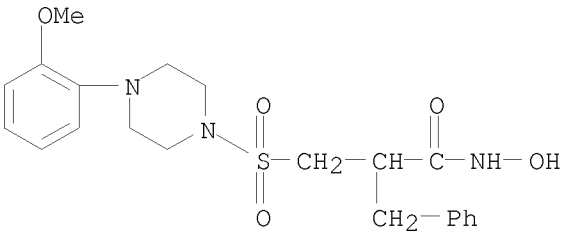
RN 817170-82-4 CAPLUS
CN Butanamide, 2-[[[4-(4-ethoxy-2-methylphenyl)-1-piperazinyl]sulfonyl]methyl]-N-hydroxy-3-methyl- (CA INDEX NAME)



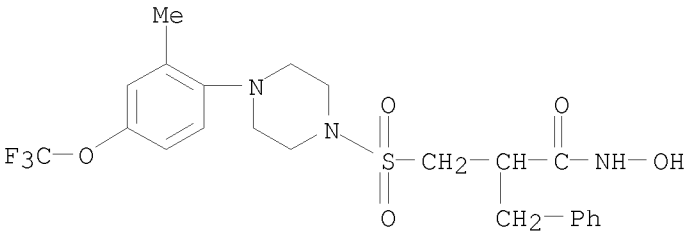
RN 817170-83-5 CAPLUS
CN Butanamide, N-hydroxy-3-methyl-2-[[[4-[2-methyl-4-(trifluoromethoxy)phenyl]-1-piperazinyl]sulfonyl]methyl]- (CA INDEX NAME)



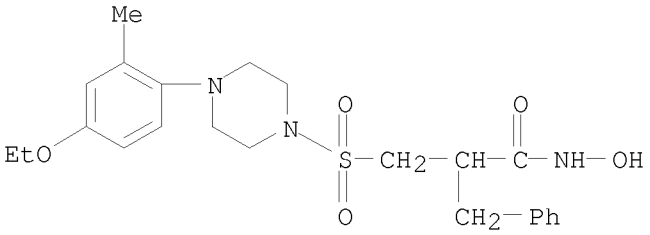
RN 817170-84-6 CAPLUS
CN Benzenepropanamide, N-hydroxy-α-[[[4-(2-methoxyphenyl)-1-piperazinyl]sulfonyl]methyl]- (CA INDEX NAME)



RN 817170-88-0 CAPLUS
CN Benzenepropanamide, N-hydroxy-α-[[[4-[2-methyl-4-(trifluoromethoxy)phenyl]-1-piperazinyl]sulfonyl]methyl]- (CA INDEX NAME)



RN 817170-89-1 CAPLUS
CN Benzenepropanamide, α-[[[4-(4-ethoxy-2-methylphenyl)-1-piperazinyl]sulfonyl]methyl]-N-hydroxy- (CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 22 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:1037074 CAPLUS
DOCUMENT NUMBER: 142:23310
TITLE: Preparation of piperazinylphenyl sulfamate derivatives as steroid sulfatase inhibitors
INVENTOR(S): Takegawa, Shigehiro; Iwashita, Shigeki; Okada, Makoto; Nakagawa, Takayoshi; Koizumi, Naoyuki; Fujii, Tomohito
PATENT ASSIGNEE(S): Teikoku Hormone Mfg. Co., Ltd., Japan
SOURCE: PCT Int. Appl., 112 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2004103971	A1	20041202	WO 2004-JP6490		20040507 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW					
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
AU 2004240842	A1	20041202	AU 2004-240842		20040507 <--
CA 2526540	A1	20041202	CA 2004-2526540		20040507 <--
EP 1627871	A1	20060222	EP 2004-731745		20040507
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK					
CN 1823039	A	20060823	CN 2004-80020584		20040507
US 20060189625	A1	20060824	US 2005-558253		20051121
PRIORITY APPLN. INFO.:			JP 2003-143503	A	20030521
			WO 2004-JP6490	W	20040507

OTHER SOURCE(S): MARPAT 142:23310
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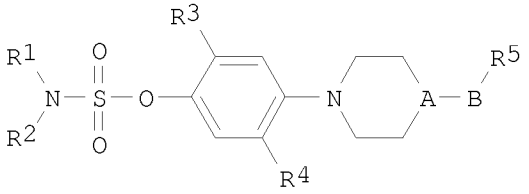

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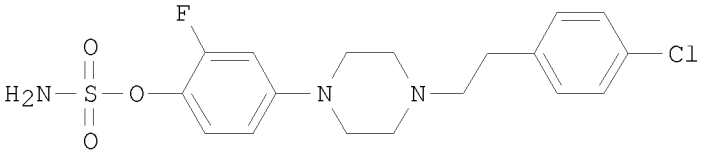


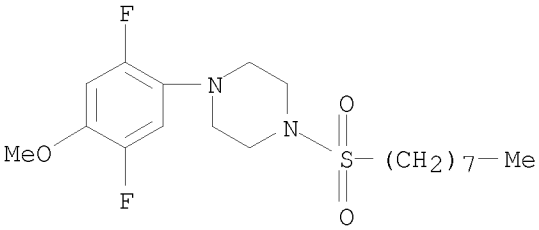
II

AB The title compds. with general formula I [wherein R1 and R2 = independently H or alkyl; R3 and R4 = independently H, halo, CN, or alkyl; A = N or CH; B = CH2, SO2, CO, CH=CH, or (un)substituted phenylene; R5 = H, alkyl, (un)substituted phenylalkyl, benzoylalkyl, cycloalkylalkyl, or piperidinylalkyl], or salts thereof are prepared as steroid sulfatase inhibitors. For example, the compound II was prepared in a multi-step synthesis. Some of compds. I showed strong steroid sulfatase inhibitory activity. I are useful for the treatment for diseases in which steroids such as estrogen and androgen participate (no data). Formulations containing I as an active ingredient were also described.

IT 800372-83-2P 800372-93-4P 800372-95-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of piperazinylphenyl sulfamate derivs. as steroid sulfatase inhibitors)

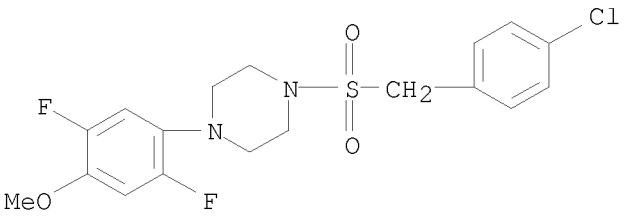
RN 800372-83-2 CAPLUS

CN Piperazine, 1-(2,5-difluoro-4-methoxyphenyl)-4-(octylsulfonyl)- (CA INDEX NAME)

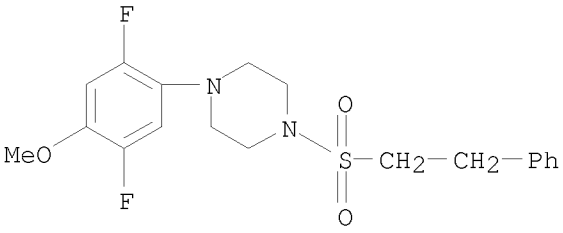


RN 800372-93-4 CAPLUS

CN Piperazine, 1-[[(4-chlorophenyl)methyl]sulfonyl]-4-(2,5-difluoro-4-methoxyphenyl)- (CA INDEX NAME)



RN 800372-95-6 CAPLUS
CN Piperazine, 1-(2,5-difluoro-4-methoxyphenyl)-4-[(2-phenylethyl)sulfonyl]-
(CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 22 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:681580 CAPLUS
DOCUMENT NUMBER: 141:207224
TITLE: Preparation of 2-cyanopyrrolopyrimidines as cathepsin S inhibitors for the treatment of neuropathic pain
INVENTOR(S): Buxton, Francis Paul; Ehara, Takeru; Ganju, Pamposh; Hallett, Allan; Irie, Ozamu; Iwasaki, Atsuko; Kanazawa, Takanori; Masuya, Keiichi; Nonomura, Kazuhiko; Sakaki, Junichi; Snell, Christopher Robert; Song, Chuanheng; Tanabe, Keiko; Teno, Naoki; Umemura, Ichiro; Yokokawa, Fumiaki
PATENT ASSIGNEE(S): Novartis A.-G., Switz.; Novartis Pharma G.m.b.H.
SOURCE: PCT Int. Appl., 163 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004069256	A1	20040819	WO 2004-EP1081	20040205 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
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AU 2004210422	B2	20080117		
CA 2514287	A1	20040819	CA 2004-2514287	20040205 <--
EP 1592426	A1	20051109	EP 2004-708332	20040205
EP 1592426	B1	20071219		
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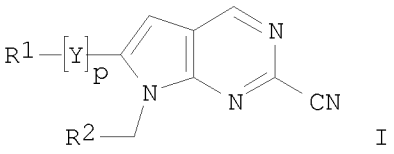
BR 2004007327	A	20060110	BR 2004-7327	20040205
CN 1756553	A	20060405	CN 2004-80006071	20040205
JP 2006516554	T	20060706	JP 2005-518660	20040205
AT 381335	T	20080115	AT 2004-708332	20040205
ES 2297378	T3	20080501	ES 2004-708332	20040205
US 20060247251	A1	20061102	US 2005-544694	20050705
IN 2005CN01800	A	20070406	IN 2005-CN1800	20050803

PRIORITY APPLN. INFO.:	GB 2003-2748	A	20030206
	GB 2003-4641	A	20030228
	GB 2003-4642	A	20030228
	WO 2004-EP1081	W	20040205

OTHER SOURCE(S): MARPAT 141:207224
GI

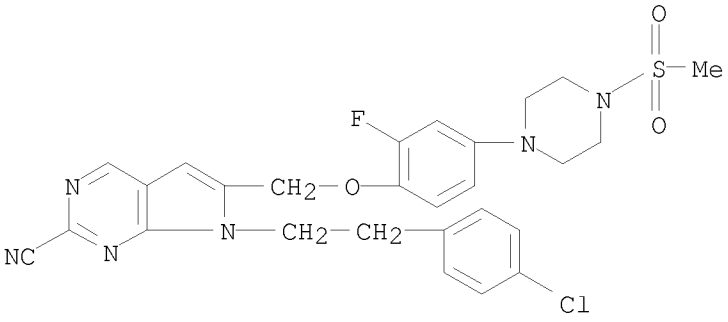


I

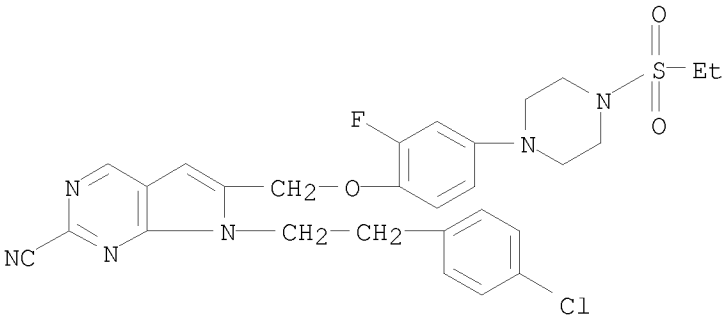
AB The title pyrrolopyrimidines [I; Y = (CH2)tO or (CH2)rS (wherein p = 1-2; r = 1-3; t = 1-3); or Y = (CH2)j or CH:CH (wherein j = 1-2; p = 1-2); or Y = (CH2)f (f = 1-2; p = 1); R1 = (un)substituted Ph, pyridyl, pyrimidinyl, etc.; R2 = alkyl, cycloalkylalkyl, indanylalkyl, etc.; with provisos], useful for the treatment of neuropathic pain in animals, especially in humans, were prepared and formulated. Thus, reacting 6-bromomethyl-7-[2-(4-chlorophenyl)ethyl]-7H-pyrrolo[2,3-d]pyrimidine-2-carbonitrile (preparation given) with 2,4-difluorophenol in the presence of K2CO3 in DMF afforded 7-[2-(4-chlorophenyl)ethyl]-6-(2,4-difluorophenoxymethyl)-7H-pyrrolo[2,3-d]pyrimidine-2-carbonitrile. The compds. I were tested for the inhibition of human cathepsin S (some exemplary IC50's were given). The compds. I typically have IC50's for inhibition of human cathepsin S of less than about 100 nM down to about 1 nM or less, preferably of about 5 nM or less.

IT 742065-11-8P 742065-12-9P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of 2-cyanopyrrolopyrimidines as cathepsin S inhibitors for the treatment of neuropathic pain)

RN 742065-11-8 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine-2-carbonitrile, 7-[2-(4-chlorophenyl)ethyl]-6-[[2-fluoro-4-[4-(methylsulfonyl)-1-piperazinyl]phenoxy]methyl]- (CA INDEX NAME)



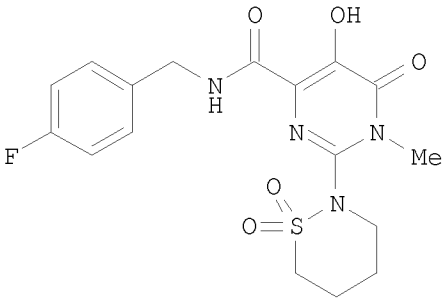
RN 742065-12-9 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine-2-carbonitrile, 7-[2-(4-chlorophenyl)ethyl]-6-[[4-[4-(ethylsulfonyl)-1-piperazinyl]-2-fluorophenoxy]methyl]- (CA INDEX NAME)


O
S
Et
N
O
F
N
N
CH2
O
N
CH2
CH2
NC
N
Cl

L4 ANSWER 4 OF 22 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:610061 CAPLUS
DOCUMENT NUMBER: 141:157128
TITLE: A preparation of pyrimidine derivatives, useful as HIV integrase inhibitors
INVENTOR(S): Walker, Michael A.; Gulgeze, Hatice Belgin; Naidu, Narasimhulu B.; Sorenson, Margaret E.; Ueda, Yasutsugu; Matiskella, John
PATENT ASSIGNEE(S): Bristol-Myers Squibb Company, USA
SOURCE: PCT Int. Appl., 136 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004062613	A2	20040729	WO 2004-US642	20040112 <--
WO 2004062613	A3	20041104		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ				
US 20040204498	A1	20041014	US 2004-755642	20040112 <--
US 7135467	B2	20061114		

PRIORITY APPLN. INFO.: US 2003-439594P P 20030113
OTHER SOURCE(S): MARPAT 141:157128
GI



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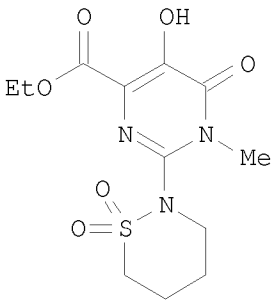


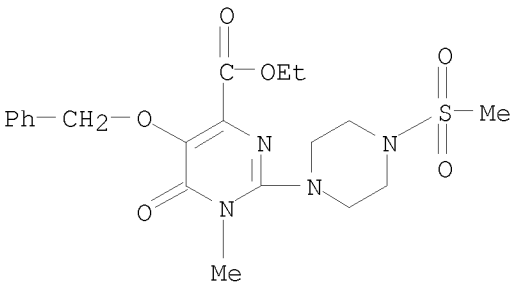
II

AB The invention relates to a preparation of pyrimidine derivs. of formula R1CH2N(B)R2 [wherein: R1 is (cyclo)alkyl or (alkyl)aryl, etc.; R2 is H, OH, or (un)substituted alkyl, etc.; B is pyrimidine derivative], useful as HIV-integrase inhibitors. The obtained compds. were screened for HIV-integrase inhibition and HIV replication inhibition. For instance, pyrimidine derivative I (HIV-integrase inhibition: IC50 = 0.003-0.1 μM) was prepared via amidation of pyrimidinecarboxylate II by 4-fluorobenzylamine with a yield of 84%.

IT 729608-78-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of pyrimidine derivs., useful as HIV-integrase inhibitors)

RN 729608-78-0 CAPLUS

CN 4-Pyrimidinecarboxylic acid, 1,6-dihydro-1-methyl-2-[4-(methylsulfonyl)-1-piperazinyl]-6-oxo-5-(phenylmethoxy)-, ethyl ester (CA INDEX NAME)

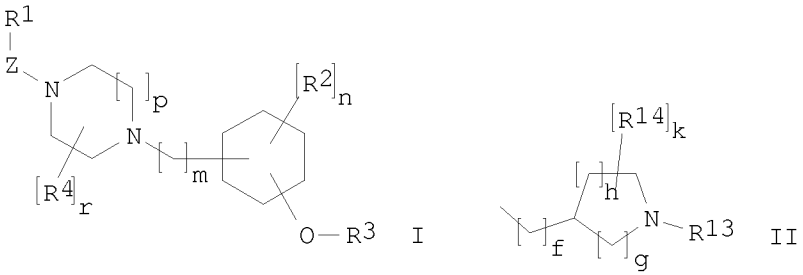


L4 ANSWER 5 OF 22 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:354923 CAPLUS
DOCUMENT NUMBER: 140:375196
TITLE: Preparation of substituted piperazines, [1,4]diazepines, and 2,5-diazabicyclo[2.2.1]heptanes as histamine H1 and/or H3 antagonists or histamine H3 reverse antagonists
INVENTOR(S): Ancliff, Rachael; Eldred, Colin David; Fogden, Yvonne C.; Hancock, Ashley Paul; Heightman, Thomas Daniel; Hobbs, Heather; Hodgson, Simon Teanby; Lindon, Matthew J.; Wilson, David Matthew
PATENT ASSIGNEE(S): Glaxo Group Limited, UK
SOURCE: PCT Int. Appl., 140 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004035556	A1	20040429	WO 2003-EP11423	20031014 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2502249	A1	20040429	CA 2003-2502249	20031014 <--
AU 2003280380	A1	20040504	AU 2003-280380	20031014 <--
BR 2003015283	A	20050830	BR 2003-15283	20031014
EP 1567511	A1	20050831	EP 2003-772221	20031014
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1726201	A	20060125	CN 2003-80106014	20031014
JP 2006508935	T	20060316	JP 2004-544241	20031014
NZ 539446	A	20061130	NZ 2003-539446	20031014
CN 101070309	A	20071114	CN 2006-10108610	20031014
NZ 549963	A	20080328	NZ 2003-549963	20031014
RU 2328494	C2	20080710	RU 2005-110061	20031014
IN 2005KN00566	A	20060224	IN 2005-KN566	20050404
NO 2005001689	A	20050707	NO 2005-1689	20050405
ZA 2005002873	A	20060726	ZA 2005-2873	20050408
US 20060025404	A1	20060202	US 2005-531758	20050414
MX 2005PA04078	A	20050608	MX 2005-PA4078	20050415
IN 2006KN02281	A	20070525	IN 2006-KN2281	20060810
JP 2007016041	A	20070125	JP 2006-231163	20060828

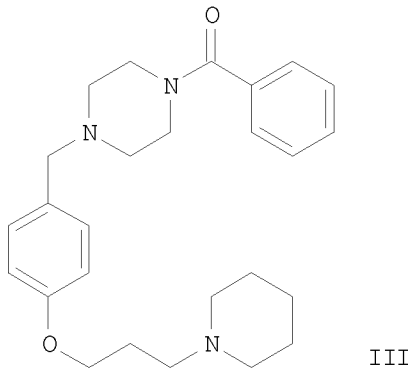
PRIORITY APPLN. INFO.:		
GB 2002-24084	A	20021016
CN 2003-80106014	A3	20031014
JP 2004-544241	A3	20031014
NZ 2003-539446	A3	20031014
WO 2003-EP11423	W	20031014
IN 2005-KN566	A3	20050404

OTHER SOURCE(S): MARPAT 140:375196
GI



I

II



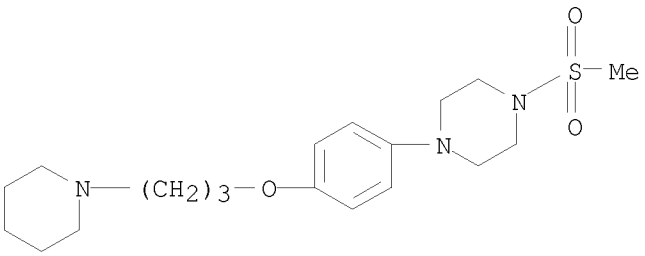
III

AB The title compds. [I; R1 = H, alkyl, alkoxy, etc.; Z = a bond, CO, (un)substituted CONH, SO2; p = 1-2; m, n, r = 0-2; R2 = halo, alkyl, alkoxy, etc.; R3 = (CH2)qNR11R12, II (wherein q = 2-4; R11, R12 = alkyl, cycloalkyl; NR11R12 = heterocyclyl; R13 = H, alkyl, cycloalkyl, etc.; R14 = halo, alkyl, haloalkyl, etc.; f, k = 0-2; g = 0-2; h = 0-3, such that g and h cannot both be 0); R4 = H, alkyl such that when r = 2, two R4 groups may instead be linked to form CH2, (CH2)2, (CH2)3; with the provisos], useful in the treatment of neurodegenerative disorders including Alzheimer's disease, and inflammatory diseases of the upper respiratory tract, were prepared Thus, reacting 1-[4-(3-piperidin-1-ylpropoxy)benzyl]piperazine.3HCl (preparation given) with benzoic acid afforded 77% III which was tested in the histamine H3 functional antagonist assay and showed pKb of > 6.5. The pharmaceutical composition comprising the compound I is claimed.

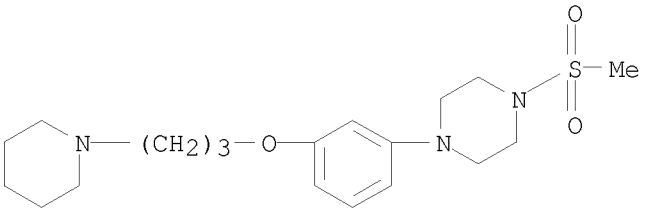
IT 684243-64-9P 684243-67-2P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of substituted piperazines, [1,4]diazepines, and 2,5-diazabicyclo[2.2.1]heptanes as histamine H1 and/or H3 antagonists or histamine H3 reverse antagonists)

RN 684243-64-9 CAPLUS
CN Piperazine, 1-(methylsulfonyl)-4-[4-[3-(1-piperidinyl)propoxy]phenyl]-

(CA INDEX NAME)



RN 684243-67-2 CAPLUS
CN Piperazine, 1-(methylsulfonyl)-4-[3-[3-(1-piperidinyl)propoxy]phenyl]-
(CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 22 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:875282 CAPLUS
DOCUMENT NUMBER: 139:364961
TITLE: Preparation of piperidinyl-and piperazinyl-sulfonylmethyl hydroxamic acids and their use as protease inhibitors
INVENTOR(S): Barta, Thomas E.; Becker, Daniel P.; Bedell, Louis J.; Boehm, Terri L.; Brown, David L.; Carroll, Jeffery N.; Chen, Yiyuan; Fobian, Yvette; Freskos, John N.; Gasiecki, Alan F.; Grapperhaus, Margaret; Heintz, Robert M.; Hockerman, Susan L.; Kassab, Darren J.; Khanna, Ish Kumar; Kolodziej, Stephen A.; Massa, Mark; Mcdonald, Joseph; Mischke, Brent V.; Mischke, Deborah A.; Mullins, Patrick B.; Nagy, Mark; Norton, Monica B.; Rico, Joseph G.; Schmidt, Michelle A.; Stehle, Nathan W.; Talley, John J.; Vernier, William F.; Villamill, Clara I.; Wang, Lijuan Jane; Wynn, Thomas A.
PATENT ASSIGNEE(S): Pharmacia Corporation, USA; et al.
SOURCE: PCT Int. Appl., 819 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE	
WO 2003091247	A2	20031106	WO 2003-US13123		20030425	<--
WO 2003091247	A3	20040115				
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW						
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG						
CA 2483314	A1	20031106	CA 2003-2483314		20030425	<--
AU 2003221786	A1	20031110	AU 2003-221786		20030425	<--
EP 1501827	A2	20050202	EP 2003-718529		20030425	
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK						
BR 2003009671	A	20050503	BR 2003-9671		20030425	
JP 2005537228	T	20051208	JP 2003-587805		20030425	
MX 2004PA10555	A	20050217	MX 2004-PA10555		20041022	
PRIORITY APPLN. INFO.:			US 2002-375598P	P	20020425	
			US 2002-380713P	P	20020515	
			US 2002-392021P	P	20020627	
			WO 2003-US13123	W	20030425	

OTHER SOURCE(S): MARPAT 139:364961
GI

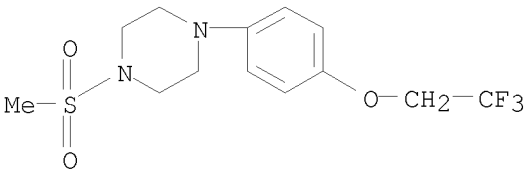
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. I [A1 and A2 together with the C to which they are bonded join to form (un)substituted-heterocyclyl or -carbocyclyl, or A1 and A2 are independently selected from H, alkyl, alkoxyalkyl, alkenyl, alkynyl, etc.; Rx = H, halo, CN, OH, NO2, alkyl, alkenyl, alkoxy, alkoxyalkyl, heterocyclyl, etc.; Y = N, CH, or CRx; E1 = (un)substituted heteroaryl; E2 = O, CO, C(O)O, OC(O), bond, S, etc.; E3 = halo, CN, (un)substituted-alkyl, -alkenyl, -alkynyl, -heterocyclyl, heterocyclylalkyl, etc.] and their pharmaceutically acceptable salts are prepared and disclosed as protease inhibitors. Thus, e.g., II·HCl was prepared with piperazine ring formation occurring via cyclization of 2,2,2-trifluoroethoxyaniline (preparation given) with N,N-di(2-chloroethyl)methylsulfonamide (preparation given) to provide piperazinyl intermediate III which was converted in five addnl. steps to the desired product. This invention is directed generally to proteinase (also known as 'protease') inhibitors, and more particularly, inhibitors of matrix metalloproteinase (also known as 'matrix metalloprotease' or 'MMP') activity and/or aggrecanase activity. In assays to determine inhibition consts. (Ki) against MMP-1, MMP-2, MMP-9, MMP-13 and MMP-14, I possessed values ranging from 0.13->10,000. This invention also is directed to compns. of such hydroxamic acids, intermediates for the syntheses of such hydroxamic acids, methods for making such hydroxamic acids, and methods for treating conditions (particularly pathol. conditions) associated with MMP activity and/or aggrecanase activity.

IT 622386-15-6P 622386-16-7P 622386-39-4P
622386-40-7P 622386-55-4P 622386-56-5P
622386-59-8P 622386-60-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of piperidinyl-and piperazinyl-sulfonylmethyl hydroxamic acids and their use as matrix metalloproteinase inhibitors)

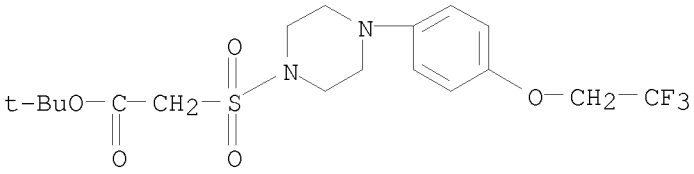
RN 622386-15-6 CAPLUS

CN Piperazine, 1-(methylsulfonyl)-4-[4-(2,2,2-trifluoroethoxy)phenyl]- (CA INDEX NAME)

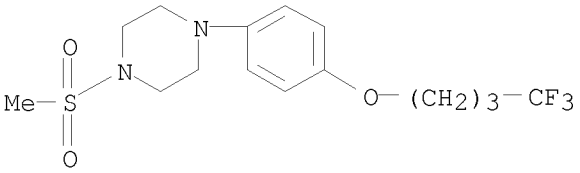


RN 622386-16-7 CAPLUS

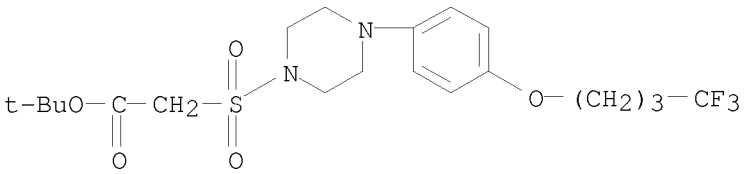
CN Acetic acid, 2-[[4-[4-(2,2,2-trifluoroethoxy)phenyl]-1-piperazinyl]sulfonyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



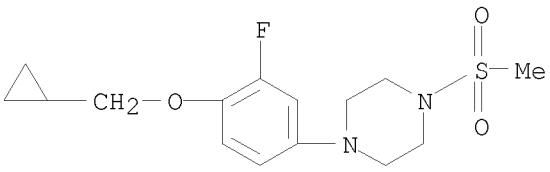
RN 622386-39-4 CAPLUS
CN Piperazine, 1-(methylsulfonyl)-4-[4-(4,4,4-trifluorobutoxy)phenyl]- (CA INDEX NAME)



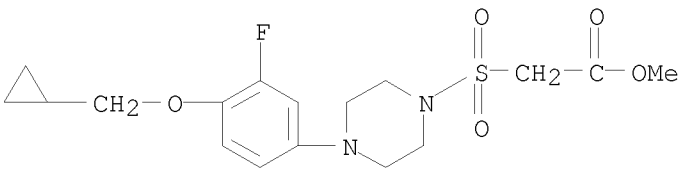
RN 622386-40-7 CAPLUS
CN Acetic acid, 2-[[4-[4-(4,4,4-trifluorobutoxy)phenyl]-1-piperazinyl]sulfonyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



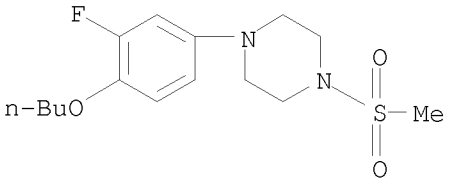
RN 622386-55-4 CAPLUS
CN Piperazine, 1-[4-(cyclopropylmethoxy)-3-fluorophenyl]-4-(methylsulfonyl)- (CA INDEX NAME)



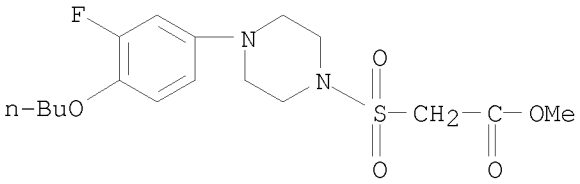
RN 622386-56-5 CAPLUS
CN Acetic acid, 2-[[4-[4-(cyclopropylmethoxy)-3-fluorophenyl]-1-piperazinyl]sulfonyl]-, methyl ester (CA INDEX NAME)



RN 622386-59-8 CAPLUS
CN Piperazine, 1-(4-butoxy-3-fluorophenyl)-4-(methylsulfonyl)- (CA INDEX NAME)



RN 622386-60-1 CAPLUS
CN Acetic acid, 2-[[4-(4-butoxy-3-fluorophenyl)-1-piperazinyl]sulfonyl]-, methyl ester (CA INDEX NAME)



L4 ANSWER 7 OF 22 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:872263 CAPLUS
DOCUMENT NUMBER: 139:364943
TITLE: Preparation of 2-phenyl-3(2H)-pyridazinones as lysyl oxidase inhibitors for preventing and treating fibrosis
INVENTOR(S): Schohe-Loop, Rudolf; Burchardt, Elmar; Faeste, Christiane; Hirth-Dietrich, Claudia; Keldenich, Joerg; Knorr, Andreas; Lampe, Thomas; Naab, Paul; Schmidt, Delf; Schmidt, Gunther
PATENT ASSIGNEE(S): Bayer AG, Germany
SOURCE: Ger. Offen., 106 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10216144	A1	20031106	DE 2002-10216144	20020412 <--
CA 2482151	A1	20031127	CA 2003-2482151	20030408 <--
WO 2003097612	A1	20031127	WO 2003-EP3628	20030408 <--
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
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US 7320977	B2	20080122		

PRIORITY APPLN. INFO.: DE 2002-10216144 A 20020412
WO 2003-EP3628 W 20030408
OTHER SOURCE(S): MARPAT 139:364943
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

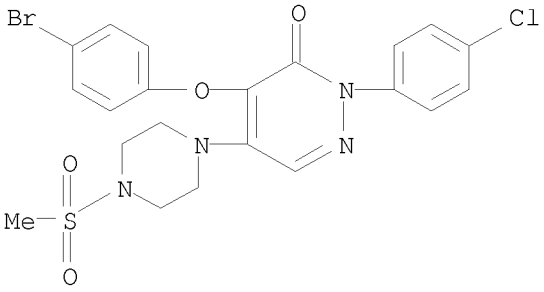
AB Title compds. I [wherein R1 = (un)substituted 5- to 7-membered heterocyclyl ring selected from imidazolyl, triazolyl, pyridinyl, piperazinyl, 1,4-diazacycloheptyl, morpholinyl, thiomorpholinyl, etc.; R2 = (un)substituted (hetero)aryl; R3 = H, halo, alkyl, CF3, NO2, CN, CO2H or alkoxycarbonyl; and their salts, solvates, and solvates of their salts] were prepared as lysyl oxidase inhibitors for preventing and treating

fibrosis in humans and/or animals. For example, II was prepared by alkylation of tert-Bu 1-piperazinecarboxylate with 2-(4-chlorophenyl)-4,5-dichloro-3(2H)-pyridazinone in dioxane in the presence of NaI at 100°, reaction of the 5-chloropyridazinone intermediate with potassium 4-phenylphenoxide in DMF, followed by Boc-deprotection. Selected I exhibited excellent IC50 values in the range of 0.003 μM to 0.017 μM for the inhibition of lysyl oxidase compared to BAPN (10 μM) and structurally related emorfazone (> 4 μM). Selected I were tested for their antifibrotic activity in rats and were found active in the chronic CCl4 poisoning model, the bile duct ligature model, and the serum-induced liver fibrosis model.

IT 620619-59-2P, 4-(4-Bromophenoxy)-2-(4-chlorophenyl)-5-(4-methylsulfonyl-1-piperazinyl)-3(2H)-pyridazinone
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of phenylpyridazinones as lysyl oxidase inhibitors for treatment of fibrosis)

RN 620619-59-2 CAPLUS

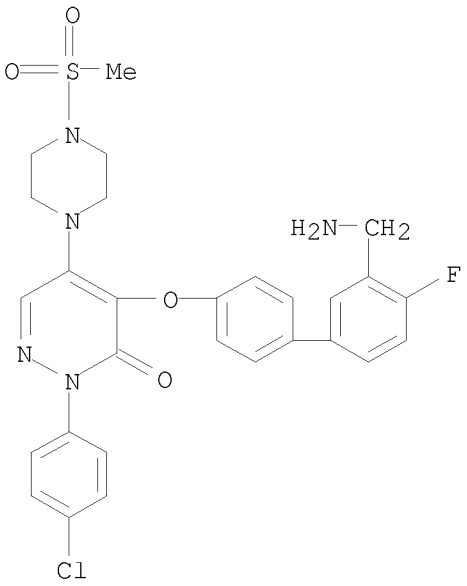
CN 3(2H)-Pyridazinone, 4-(4-bromophenoxy)-2-(4-chlorophenyl)-5-[4-(methylsulfonyl)-1-piperazinyl]- (CA INDEX NAME)



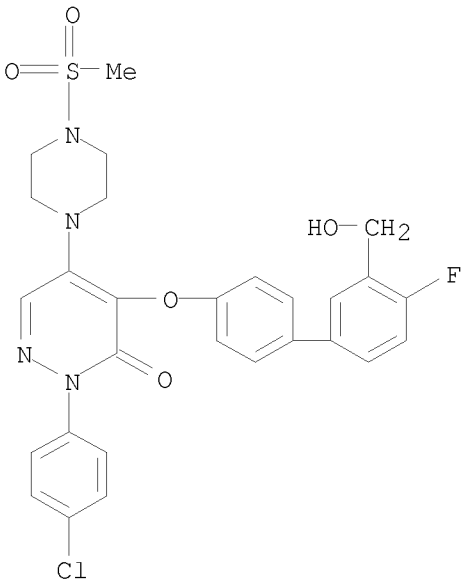
IT 620617-04-1P, 4-[[3'-(Aminomethyl)-4'-fluoro-4-biphenyl]oxy]-2-(4-chlorophenyl)-5-[4-(methylsulfonyl)-1-piperazinyl]-3(2H)-pyridazinone 620617-05-2P, 2-(4-Chlorophenyl)-4-[[4'-fluoro-3'-(hydroxymethyl)-4-biphenyl]oxy]-5-[4-(methylsulfonyl)-1-piperazinyl]-3(2H)-pyridazinone 620617-48-3P, 5-(4-Methylsulfonyl-1-piperazinyl)-4-(4-biphenyloxy)-2-(4-chlorophenyl)-3(2H)-pyridazinone 620617-65-4P, 5-(4-Isopropylsulfonyl-1-piperazinyl)-4-(4-biphenyloxy)-2-(4-chlorophenyl)-3(2H)-pyridazinone 620617-84-7P, 5-(4-Methylsulfonyl-1-piperazinyl)-4-(4-biphenyloxy)-2-(4-methylphenyl)-3(2H)-pyridazinone 620617-85-8P, 5-(4-Methylsulfonyl-1-piperazinyl)-4-[(4'-fluoro-4-biphenyl)oxy]-2-(4-methylphenyl)-3(2H)-pyridazinone 620617-86-9P, 5-(4-Methylsulfonyl-1-piperazinyl)-4-[(2'-methoxymethoxy-4'-fluoro-4-biphenyl)oxy]-2-(4-chlorophenyl)-3(2H)-pyridazinone 620617-87-0P, 5-(4-Methylsulfonyl-1-piperazinyl)-4-[(3'-methylcarbonylamino-4'-fluoro-4-biphenyl)oxy]-2-(4-chlorophenyl)-3(2H)-pyridazinone 620617-88-1P, 5-(4-Methylsulfonyl-1-piperazinyl)-4-[(2'-(methylcarbonylaminomethyl)-4-biphenyl)oxy]-2-(4-chlorophenyl)-3(2H)-pyridazinone 620617-89-2P, 5-(4-Methylsulfonyl-1-piperazinyl)-4-[(2',4'-difluoro-4-biphenyl)oxy]-2-(4-chlorophenyl)-3(2H)-pyridazinone 620617-90-5P, 5-(4-Methylsulfonyl-1-piperazinyl)-4-[(2'-methoxy-4-biphenyl)oxy]-2-(4-chlorophenyl)-3(2H)-pyridazinone 620617-91-6P, 5-(4-Methylsulfonyl-1-piperazinyl)-4-[(2'-[(methylcarbonylamino)methyl]-4'-fluoro-4-biphenyl)oxy]-2-(4-chlorophenyl)-3(2H)-pyridazinone

620617-92-7P, 5-(4-Methylsulfonyl-1-piperazinyl)-4-[(2'-methoxy-4'-fluoro-4-biphenyl)oxy]-2-(4-chlorophenyl)-3(2H)-pyridazinone
620617-93-8P, 5-(4-Methylsulfonyl-1-piperazinyl)-4-[(3'-[(methylcarbonylamino)methyl]-4-biphenyl)oxy]-2-(4-chlorophenyl)-3(2H)-pyridazinone 620618-08-8P, 5-(4-Methylsulfonyl-1-piperazinyl)-4-[(2'-hydroxy-4'-fluoro-4-biphenyl)oxy]-2-(4-chlorophenyl)-3(2H)-pyridazinone
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(lysyl oxidase inhibitor; preparation of phenylpyridazinones as lysyl oxidase inhibitors for treatment of fibrosis)

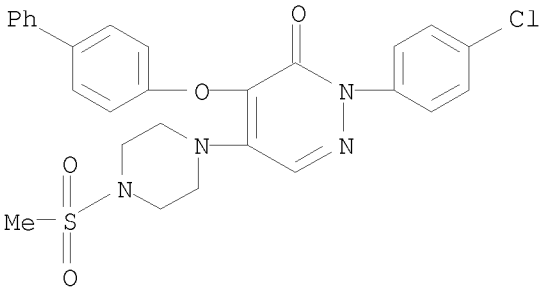
RN 620617-04-1 CAPLUS
CN 3(2H)-Pyridazinone, 4-[[3'-(aminomethyl)-4'-fluoro[1,1'-biphenyl]-4-yl]oxy]-2-(4-chlorophenyl)-5-[4-(methylsulfonyl)-1-piperazinyl]- (CA INDEX NAME)



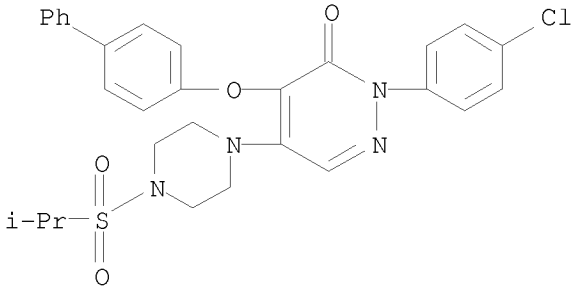
RN 620617-05-2 CAPLUS
CN 3(2H)-Pyridazinone, 2-(4-chlorophenyl)-4-[[4'-fluoro-3'-(hydroxymethyl)[1,1'-biphenyl]-4-yl]oxy]-5-[4-(methylsulfonyl)-1-piperazinyl]- (CA INDEX NAME)



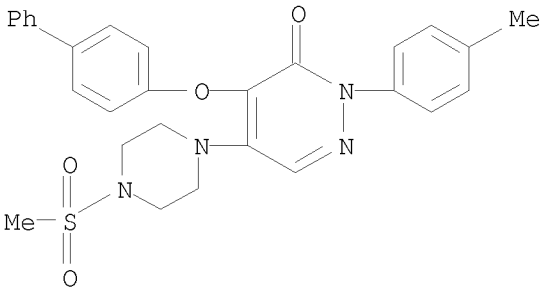
RN 620617-48-3 CAPLUS
CN 3(2H)-Pyridazinone, 4-([1,1'-biphenyl]-4-yloxy)-2-(4-chlorophenyl)-5-[4-(methylsulfonyl)-1-piperazinyl]- (CA INDEX NAME)



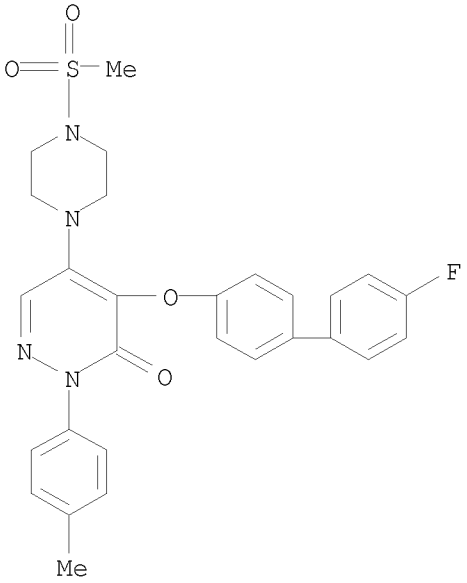
RN 620617-65-4 CAPLUS
CN 3(2H)-Pyridazinone, 4-([1,1'-biphenyl]-4-yloxy)-2-(4-chlorophenyl)-5-[4-[(1-methylethyl)sulfonyl]-1-piperazinyl]- (CA INDEX NAME)



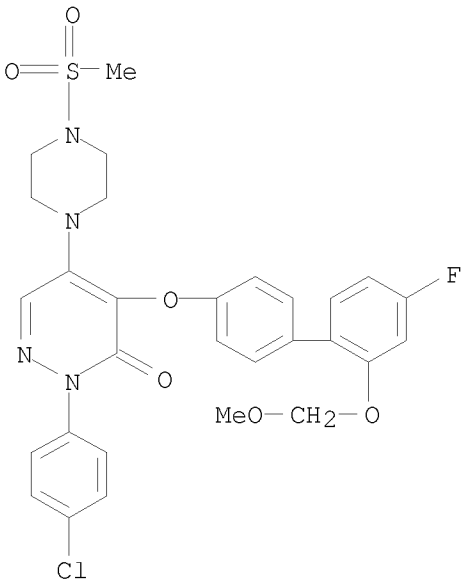
RN 620617-84-7 CAPLUS
CN 3(2H)-Pyridazinone, 4-([1,1'-biphenyl]-4-yloxy)-2-(4-methylphenyl)-5-[4-(methylsulfonyl)-1-piperazinyl]- (CA INDEX NAME)



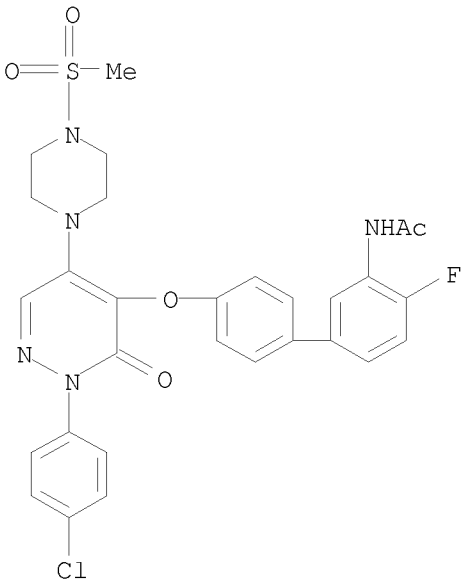
RN 620617-85-8 CAPLUS
CN 3(2H)-Pyridazinone, 4-[(4'-fluoro[1,1'-biphenyl]-4-yl)oxy]-2-(4-methylphenyl)-5-[4-(methylsulfonyl)-1-piperazinyl]- (CA INDEX NAME)



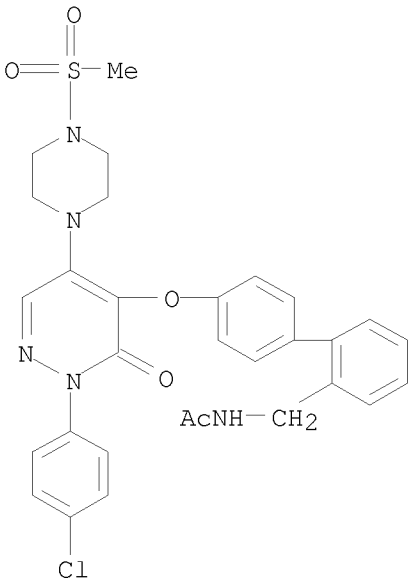
RN 620617-86-9 CAPLUS
CN 3(2H)-Pyridazinone, 2-(4-chlorophenyl)-4-[[4'-fluoro-2'-(methoxymethoxy)[1,1'-biphenyl]-4-yl]oxy]-5-[4-(methylsulfonyl)-1-piperazinyl]- (CA INDEX NAME)



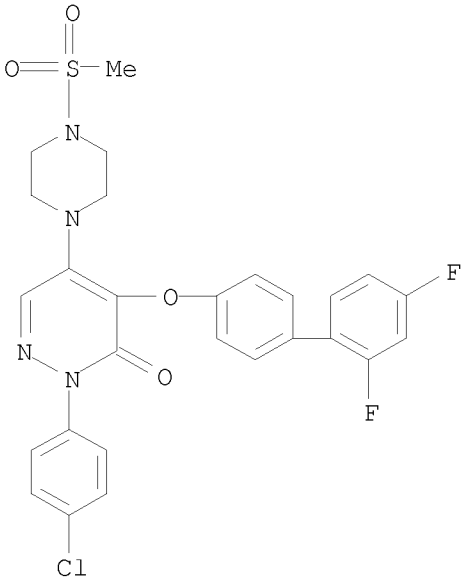
RN 620617-87-0 CAPLUS
CN Acetamide, N-[4'-[[2-(4-chlorophenyl)-2,3-dihydro-5-[4-(methylsulfonyl)-1-piperazinyl]-3-oxo-4-pyridazinyl]oxy]-4-fluoro[1,1'-biphenyl]-3-yl]- (CA INDEX NAME)



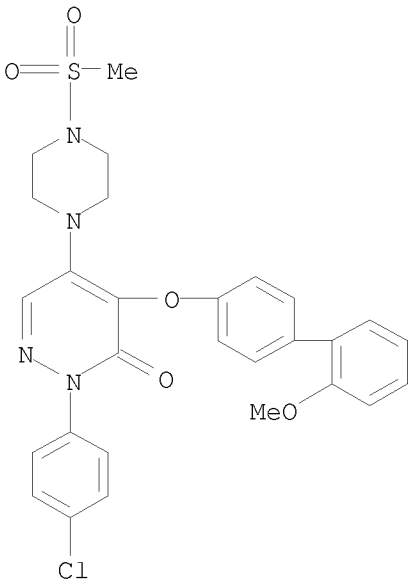
RN 620617-88-1 CAPLUS
CN Acetamide, N-[[4'-[[2-(4-chlorophenyl)-2,3-dihydro-5-[4-(methylsulfonyl)-1-piperazinyl]-3-oxo-4-pyridazinyl]oxy][1,1'-biphenyl]-2-yl]methyl]- (CA INDEX NAME)



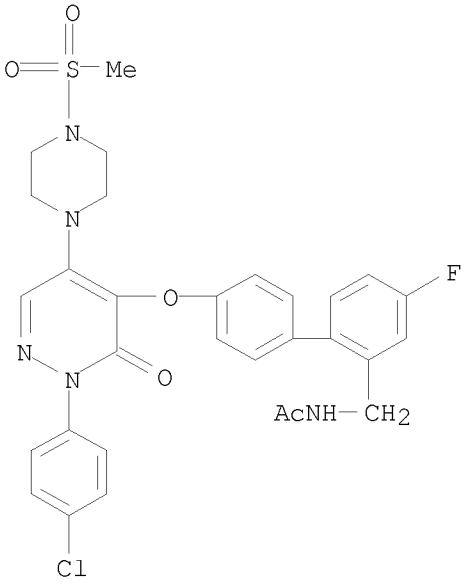
RN 620617-89-2 CAPLUS
CN 3(2H)-Pyridazinone, 2-(4-chlorophenyl)-4-[(2',4'-difluoro[1,1'-biphenyl]-4-yl)oxy]-5-[4-(methylsulfonyl)-1-piperazinyl]- (CA INDEX NAME)



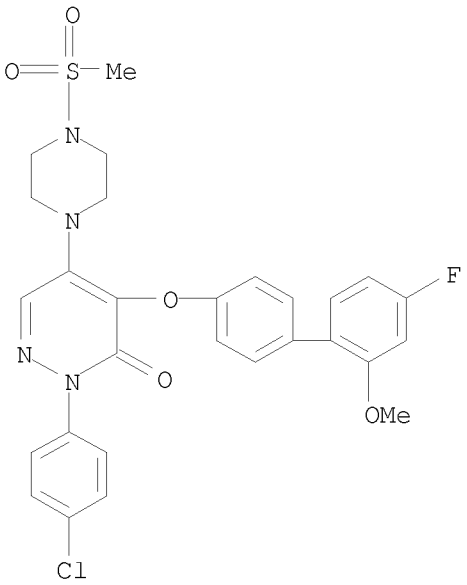
RN 620617-90-5 CAPLUS
CN 3(2H)-Pyridazinone, 2-(4-chlorophenyl)-4-[(2'-methoxy[1,1'-biphenyl]-4-yl)oxy]-5-[4-(methylsulfonyl)-1-piperazinyl]- (CA INDEX NAME)



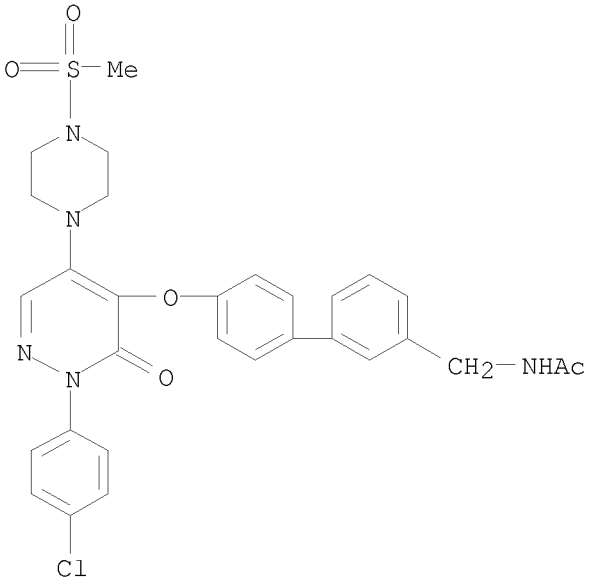
RN 620617-91-6 CAPLUS
CN Acetamide, N-[[4'-[[2-(4-chlorophenyl)-2,3-dihydro-5-[4-(methylsulfonyl)-1-piperazinyl]-3-oxo-4-pyridazinyl]oxy]-4-fluoro[1,1'-biphenyl]-2-yl]methyl]- (CA INDEX NAME)



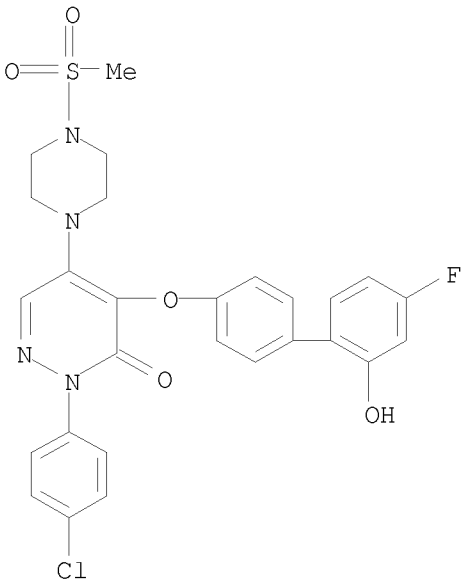
RN 620617-92-7 CAPLUS
CN 3(2H)-Pyridazinone, 2-(4-chlorophenyl)-4-[(4'-fluoro-2'-methoxy[1,1'-biphenyl]-4-yl)oxy]-5-[4-(methylsulfonyl)-1-piperazinyl]- (CA INDEX NAME)



RN 620617-93-8 CAPLUS
CN Acetamide, N-[[4'-[[2-(4-chlorophenyl)-2,3-dihydro-5-[4-(methylsulfonyl)-1-piperazinyl]-3-oxo-4-pyridazinyl]oxy][1,1'-biphenyl]-3-yl]methyl]- (CA INDEX NAME)



RN 620618-08-8 CAPLUS
CN 3(2H)-Pyridazinone, 2-(4-chlorophenyl)-4-[(4'-fluoro-2'-hydroxy[1,1'-biphenyl]-4-yl)oxy]-5-[4-(methylsulfonyl)-1-piperazinyl]- (CA INDEX NAME)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L4 ANSWER 8 OF 22 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:832759 CAPLUS
DOCUMENT NUMBER: 137:353062
TITLE: Preparation of 2-iminopyrrolidine derivatives as thrombin receptor antagonists
INVENTOR(S): Suzuki, Shuichi; Kotake, Makoto; Miyamoto, Mitsuaki; Kawahara, Tetsuya; Kajiwara, Akiharu; Hishinuma, Ieharu; Okano, Kazuo; Miyazawa, Syuhei; Clark, Richard; Ozaki, Fumihiro; Sato, Nobuaki; Shinoda, Masanobu; Kamada, Atsushi; Tsukada, Itaru; Matsuura, Fumiyoshi; Naoe, Yoshimitsu; Terauchi, Taro; Oohashi, Yoshiaki; Ito, Osamu; Tanaka, Hiroshi; Musya, Takashi; Kogushi, Motoji; Kawada, Tsutomu; Matsuoka, Toshiyuki; Kobayashi, Hiroko; Chiba, Kenichi; Kimura, Akifumi; Ono, Naoto
PATENT ASSIGNEE(S): Eisai Co., Ltd., Japan
SOURCE: PCT Int. Appl., 948 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

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WO 2002085855	A1	20021031	WO 2002-JP3961	20020419 <--
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PRIORITY APPLN. INFO.:			JP 2001-121829	A	20010419
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OTHER SOURCE(S): MARPAT 137:353062

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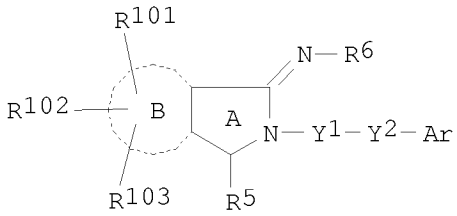

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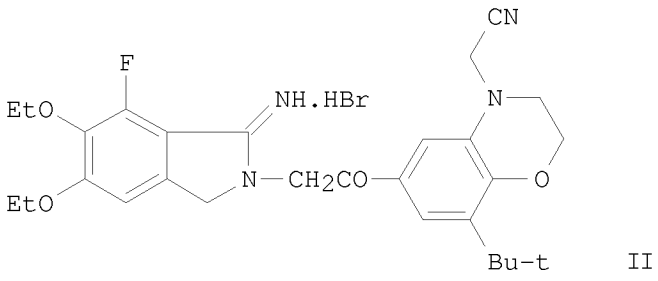


II

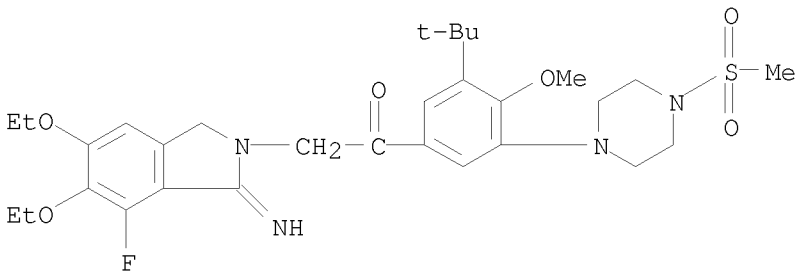
AB 2-Iminopyrrolidine derivs. including 2,3-dihydro-1H-isoindole and 6,7-dihydro-5H-pyrrolo[3,4-b]pyridine represented by the general formula (I) or salts thereof [wherein B = (un)substituted aromatic hydrocarbon or aromatic heterocyclic ring optionally containing 1 or 2 N atom(s); R101, R102, R103 = H, cyano, halo, each (un)substituted C1-6 alkyl, C2-8 alkenyl, C2-8 alkynyl, acyl, CO2H, CONH2, C1-6 alkoxycarbonyl, C1-6 alkylaminocarbonyl, HO, C1-6 alkoxy, C3-8 cycloalkyloxy, NH2, C1-6 alkylamino, C3-8 cycloalkylamino, acylamino, ureido, sulfonylamino, sulfonyl, SO2NH2, or C3-8 cycloalkyl, etc.; Y1 = a single bond, (CH2)m, each (un)substituted

CH, CH2, NH, CONH, or SO2NH, CH2CO, SO, SO2, CO (wherein m = an integer of 1-3); Y2 = a single bond, O, N, (CH2)m, each (un)substituted CH, CH2, or C(:NOH), CO, SO, SO2; Ar = H, (un)substituted Ph] are prepared These compds. are thrombin receptor antagonists, in particular thrombin PAR1 receptor antagonists and are useful as blood platelet aggregation inhibitors and proliferation inhibitors of smooth muscle cell, endothelial cell, fibroblast, kidney cell, osteosarcoma cell, muscle cell, cancer cell, and/or glial cell and for the treatment and/or prevention of thrombosis, vascular restenosis, deep vein thrombosis, lung embolism, cerebral infarction, heart disease, disseminated intravascular coagulation syndrome, hypertension, inflammation, rheumatism, asthma, glomerulonephritis, osteoporosis, nerve disease, and/or malignant tumor. Thus, [6-[(1-imino-1,3-dihydroisoindol-2-yl)acetyl]-2,3-dihydrobenz[1,4]oxazin-4-yl]acetonitrile derivative (II) in vitro showed IC50 of 0.017 μM for inhibiting the binding of [3H]Ala-(4-fluoro)Phe-Arg-(cyclohexyl)Ala-homoArg-Tyr-NH2 to thrombin receptor of human blood platelet, that of 0.29 μM for inhibiting the human blood platelet aggregation induced by thrombin, and that of 0.0061 μM for inhibiting the proliferation of rat smooth cell.

IT 474544-24-6P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of dihydroisoindole and dihydro-5H-pyrrolo[3,4-b]pyridine derivs. as thrombin receptor antagonists and remedies and/or preventives for diseases)

RN 474544-24-6 CAPLUS

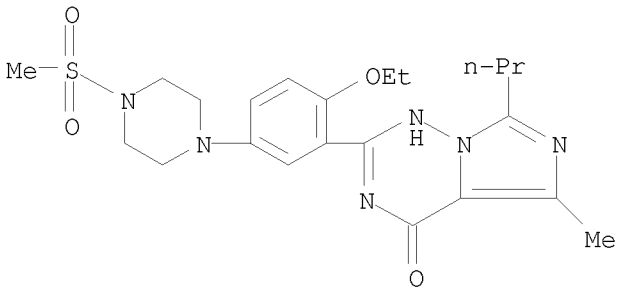
CN Ethanone, 2-(5,6-diethoxy-7-fluoro-1,3-dihydro-1-imino-2H-isoindol-2-yl)-1-[3-(1,1-dimethylethyl)-4-methoxy-5-[4-(methylsulfonyl)-1-piperazinyl]phenyl]-, hydrobromide (1:1) (CA INDEX NAME)



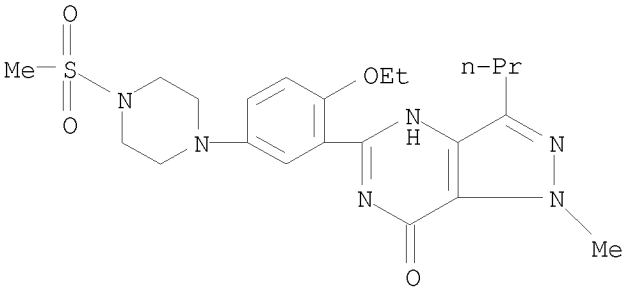
● HBr

REFERENCE COUNT: 100 THERE ARE 100 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

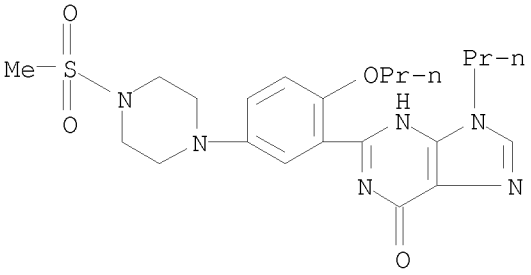
L4 ANSWER 9 OF 22 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:175759 CAPLUS
DOCUMENT NUMBER: 137:304250
TITLE: Imidazo[5,1-f]triazin-4(3H)-ones, a new class of potent PDE 5 inhibitors
AUTHOR(S): Haning, Helmut; Niewohner, Ulrich; Schenke, Thomas; Es-Sayed, Mazen; Schmidt, Gunter; Lampe, Thomas; Bischoff, Erwin
CORPORATE SOURCE: Business Group Pharma, Department of Medicinal Chemistry, Bayer AG, Wuppertal, D-42096, Germany
SOURCE: Bioorganic & Medicinal Chemistry Letters (2002), 12(6), 865-868
CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB 2-Aryl-substituted imidazo[5,1-f][1,2,4]triazin-4(3H)-ones represent a new class of potent cGMP-PDE 5 inhibitors that prove to be superior to other purine-isosteric inhibitors. Subnanomolar inhibitors of PDE 5 with activity in in-vivo models for erectile dysfunction have been identified. BAY 38-9456 (Vardenafil-hydrochloride) has been selected for clin. studies in the indication of erectile dysfunction.
IT 472965-06-3 472965-07-4 472965-09-6
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(imidazo[5,1-f]triazin-4(3H)-ones, a new class of potent PDE 5 inhibitors)
RN 472965-06-3 CAPLUS
CN Imidazo[5,1-f][1,2,4]triazin-4(1H)-one, 2-[2-ethoxy-5-[4-(methylsulfonyl)-1-piperazinyl]phenyl]-5-methyl-7-propyl- (CA INDEX NAME)



RN 472965-07-4 CAPLUS
CN 7H-Pyrazolo[4,3-d]pyrimidin-7-one, 5-[2-ethoxy-5-[4-(methylsulfonyl)-1-piperazinyl]phenyl]-1,6-dihydro-1-methyl-3-propyl- (CA INDEX NAME)



RN 472965-09-6 CAPLUS
CN 6H-Purin-6-one, 1,9-dihydro-2-[5-[4-(methylsulfonyl)-1-piperazinyl]-2-propoxyphenyl]-9-propyl- (CA INDEX NAME)



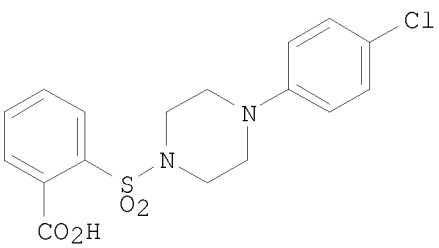
REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 10 OF 22 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2000:688210 CAPLUS
DOCUMENT NUMBER: 133:266602
TITLE: Preparation of hydroxamic and carboxylic acid derivatives for treating condition associated with matrix metalloproteinase, ADAM or ADAM-TS enzymes
INVENTOR(S): Owen, David Alan; Baxter, Andrew Douglas; Watson, Robert John; Batty, Duncan
PATENT ASSIGNEE(S): Darwin Discovery Limited, UK
SOURCE: PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000056704	A1	20000928	WO 2000-GB1076	20000322 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2367963	A1	20000928	CA 2000-2367963	20000322 <--
EP 1163213	A1	20011219	EP 2000-911128	20000322 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 6465468	B1	20021015	US 2000-623835	20000322 <--
JP 2003525203	T	20030826	JP 2000-606567	20000322 <--
US 20030022893	A1	20030130	US 2002-230932	20020829 <--

PRIORITY APPLN. INFO.:	GB 1999-6585	A	19990322
	GB 1999-27782	A	19991124
	US 2000-623835	A1	20000322
	WO 2000-GB1076	W	20000322

OTHER SOURCE(S): MARPAT 133:266602
GI



II

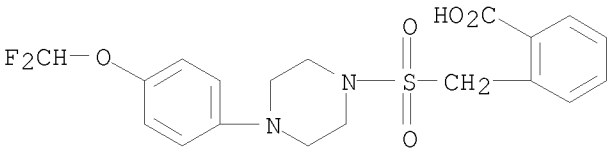
AB The title compds. B2NX(CH2)mW(CR1R2)nCOY [I; n = 0-1; m = 0-1; X =

S(O)1-2; Y = OH, NHOH; W = aryl, heteroaryl; R1 = H, alkyl, alkenyl, etc.; R2 = H, alkyl; CR1R2 = (un)substituted cycloalkyl, heterocycloalkyl; B = H, alkyl, alkenyl, etc.; B2N = (un)substituted heterocycloalkyl] that have utility in the treatment of a condition associated with matrix metalloproteinase, ADAM or ADAM-TS enzymes, a condition that is mediated by TNFα or a condition involving a membrane-shedding event that is mediated by a metalloproteinase, were prepared Thus, reacting 4-(4-chlorophenyl)piperazine.2HCl with 2-chlorosulfonylbenzoic acid Me ester in the presence of Et3N in CH2Cl2 followed by hydrolysis afforded benzoic acid II. Compds. I are effective at 0.01-50 mg/kg/day.

IT 296765-60-1P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of hydroxamic and carboxylic acid derivs. for treating condition associated with matrix metalloproteinase, ADAM or ADAM-TS enzymes)

RN 296765-60-1 CAPLUS

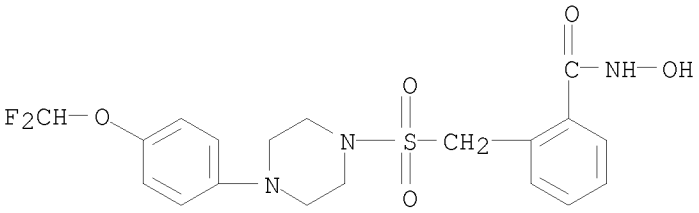
CN Benzoic acid, 2-[[[4-[4-(difluoromethoxy)phenyl]-1-piperazinyl]sulfonyl]methyl]- (CA INDEX NAME)



IT 296765-68-9P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of hydroxamic and carboxylic acid derivs. for treating condition associated with matrix metalloproteinase, ADAM or ADAM-TS enzymes)

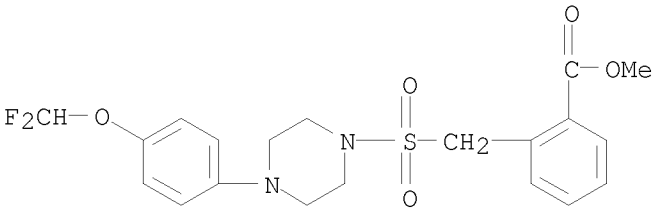
RN 296765-68-9 CAPLUS

CN Benzamide, 2-[[[4-[4-(difluoromethoxy)phenyl]-1-piperazinyl]sulfonyl]methyl]-N-hydroxy- (CA INDEX NAME)



IT 296766-16-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of hydroxamic and carboxylic acid derivs. for treating condition associated with matrix metalloproteinase, ADAM or ADAM-TS

enzymes)
RN 296766-16-0 CAPLUS
CN Benzoic acid, 2-[[[4-[4-(difluoromethoxy)phenyl]-1-piperazinyl]sulfonyl]methyl]-, methyl ester (CA INDEX NAME)



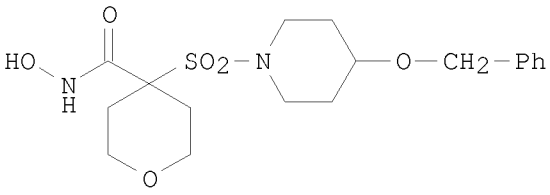
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 11 OF 22 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2000:553575 CAPLUS
DOCUMENT NUMBER: 133:164006
TITLE: Preparation of sulfamato hydroxamic acid metalloprotease inhibitors
INVENTOR(S): De Crescenzo, Gary A.; Rico, Joseph G.; Boehm, Terri L.; Carroll, Jeffery N.; Kassab, Darren J.; Mischke, Deborah A.
PATENT ASSIGNEE(S): G.D. Searle and Co., USA
SOURCE: PCT Int. Appl., 628 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000046221	A1	20000810	WO 2000-US3061	20000207 <--
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2362230	A1	20000810	CA 2000-2362230	20000207 <--
EP 1157021	A1	20011128	EP 2000-905996	20000207 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
BR 2000008440	A	20020326	BR 2000-8440	20000207 <--
HU 2002000119	A2	20020629	HU 2002-119	20000207 <--
HU 2002000119	A3	20030428		
US 6448250	B1	20020910	US 2000-499276	20000207 <--
JP 2002536373	T	20021029	JP 2000-597291	20000207 <--
EE 200100410	A	20021216	EE 2001-410	20000207 <--
AU 775701	B2	20040812	AU 2000-27574	20000207 <--
US 6372758	B1	20020416	US 2001-884548	20010619 <--
NO 2001003850	A	20010919	NO 2001-3850	20010807 <--
BG 105788	A	20020228	BG 2001-105788	20010807 <--
MX 2001PA07987	A	20020424	MX 2001-PA7987	20010807 <--
ZA 2001006492	A	20030507	ZA 2001-6492	20010807 <--
IN 2001CN01119	A	20050304	IN 2001-CN1119	20010808
US 6492367	B1	20021210	US 2002-84713	20020226 <--
US 6800646	B1	20041005	US 2002-262622	20020930 <--
HK 1049660	A1	20060512	HK 2003-100924	20030207
US 20050049280	A1	20050303	US 2004-887450	20040708
US 7067670	B2	20060627		

PRIORITY APPLN. INFO.:	US 1999-119181P	P	19990208
	US 2000-499276	A1	20000207
	WO 2000-US3061	W	20000207
	US 2002-84713	A3	20020226
	US 2002-262622	A3	20020930

OTHER SOURCE(S): MARPAT 133:164006
GI



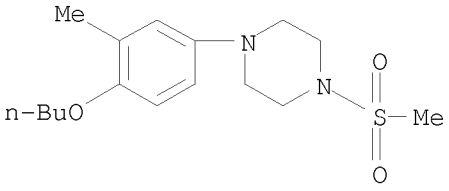
II

AB The title compds. R20C(O)CR1R2SO2NR3aR3b (I) [wherein R1 and R2 taken together with the C to which they are attached = (un)substituted heterocyclyl or cycloalkyl; or R1 and R2 = independently H, (un)substituted (cyclo)alkyl, alkyloxylalkyl, alkylthioalkyl, alkenyl, alkynyl, aryl(alkyl), heterocyclyl(alkyl), etc.; R3a and R3b = independently H or (un)substituted alkyl, alkenyl, alkynyl, (hetero)aryl, heterocyclyl, cycloalkyl, or alkoxyalkyl; R20 = OH, alkoxyl, aryloxy, NH-OR22, or NH-OR14; R22 = selectively removable protecting group, such as 2-THP, benzyl, trisubstituted silyl, o-NO2C6H4, etc.; R14 = H, a cation, or acyl] were prepared as selective matrix metalloproteinase (MMP) inhibitors for the treatment of various conditions, such as pathol. breakdown of connective tissue, osteoarthritis, inflammation, tumor growth, and angiogenesis. Examples include the syntheses of over 50 piperidinylsulfonyl and piperazinylsulfonyl hydroxamic acids and their intermediates. In vitro MMP assay data for I show selective inhibition of MMP-2 and MMP-13 compared to MMP-1. Some inhibition assay data for MMP-3, MMP-7, MMP-8, MMP-9, and MMP-14 are also given. Thus, II was prepared in a multi-step sequence involving addition of MeOC(O)Cl to 1-(methylsulfonyl)-4-(benzyloxy)piperidine (4-step preparation given) to form the methylene sulfonamide, cycloaddn. of dibromodiethyl ether to give the THF-substituted sulfonamide, deesterification, addition of O-(tetrahydro-2H-pyran-2-yl)hydroxylamine to form the THP hydroxamate, and deprotection to yield the desired hydroxamic acid. II inhibited MMP-1, MMP-2, and MMP-13 with IC50 values of < 10,000 nM, 7.0 nM and 20.0 nM, resp.

IT 287954-89-6P 287954-91-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of sulfamato hydroxamic acid metalloprotease inhibitors by cycloaddn. of dihalodialkyl ethers and amines to methylene sulfonamides followed by addition of hydroxylamines)

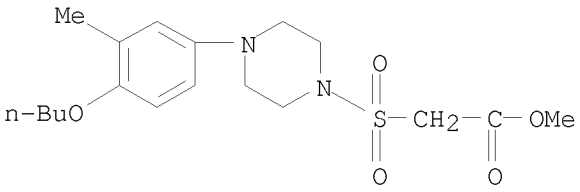
RN 287954-89-6 CAPLUS

CN Piperazine, 1-(4-butoxy-3-methylphenyl)-4-(methylsulfonyl)- (CA INDEX NAME)



RN 287954-91-0 CAPLUS

CN Acetic acid, 2-[[4-(4-butoxy-3-methylphenyl)-1-piperazinyl]sulfonyl]-, methyl ester (CA INDEX NAME)



REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

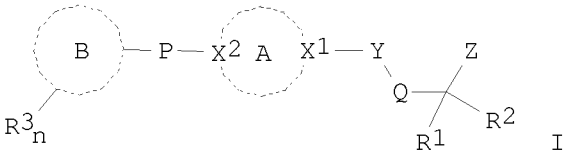
L4 ANSWER 12 OF 22 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2000:161258 CAPLUS
DOCUMENT NUMBER: 132:207849
TITLE: Preparation of arylpiperazines as metalloproteinase inhibiting agents (MMP)
INVENTOR(S): Barlaam, Bernard Christophe; Newcombe, Nicholas John; Tucker, Howard; Waterson, David
PATENT ASSIGNEE(S): Zeneca Limited, UK; Zeneca-Pharma Sa
SOURCE: PCT Int. Appl., 82 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000012478	A1	20000309	WO 1999-GB2801	19990825 <--
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2339761	A1	20000309	CA 1999-2339761	19990825 <--
AU 9955247	A	20000321	AU 1999-55247	19990825 <--
AU 764367	B2	20030814		
BR 9913255	A	20010522	BR 1999-13255	19990825 <--
EP 1109787	A1	20010627	EP 1999-941751	19990825 <--
EP 1109787	B1	20060517		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, CY				
TR 200100605	T2	20010821	TR 2001-605	19990825 <--
HU 2001003344	A2	20020228	HU 2001-3344	19990825 <--
HU 2001003344	A3	20020328		
EE 200100106	A	20020617	EE 2001-106	19990825 <--
EE 5005	B1	20080415		
JP 2002523493	T	20020730	JP 2000-567511	19990825 <--
NZ 509730	A	20030530	NZ 1999-509730	19990825 <--
RU 2220967	C2	20040110	RU 2001-108591	19990825 <--
NZ 524921	A	20041029	NZ 1999-524921	19990825 <--
AT 326448	T	20060615	AT 1999-941751	19990825
PT 1109787	T	20060929	PT 1999-941751	19990825
ES 2263284	T3	20061201	ES 1999-941751	19990825
TW 240722	B	20051001	TW 1999-88114833	19990830
ZA 2001001231	A	20020513	ZA 2001-1231	20010213 <--
MX 2001PA01847	A	20020408	MX 2001-PA1847	20010220 <--
US 6734184	B1	20040511	US 2001-763709	20010226 <--
KR 771454	B1	20071031	KR 2001-702457	20010226
NO 2001001023	A	20010425	NO 2001-1023	20010228 <--
NO 321478	B1	20060515		
BG 105369	A	20011231	BG 2001-105369	20010322 <--
HK 1036060	A1	20061027	HK 2001-106732	20010924
AU 2003262101	A1	20031218	AU 2003-262101	20031112 <--
AU 2003262101	B2	20060921		

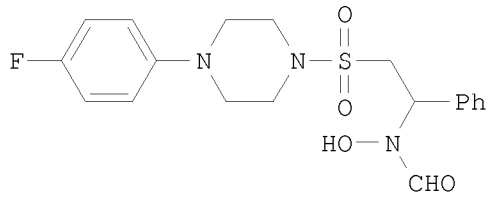
US 20040171641	A1	20040902	US 2004-787775	20040226 <--
US 7342020	B2	20080311		
PRIORITY APPLN. INFO.:			EP 1998-402144	A 19980831
			EP 1999-401351	A 19990604
			AU 1999-55247	A3 19990825
			WO 1999-GB2801	W 19990825
			US 2001-763709	A1 20010226

OTHER SOURCE(S): MARPAT 132:207849

GI



I



II

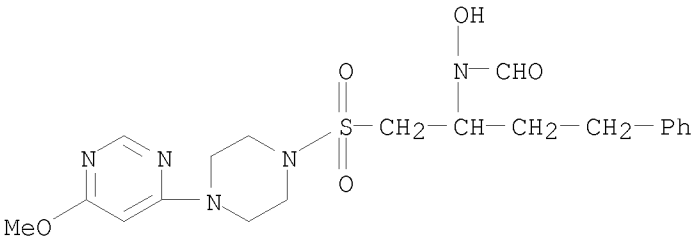
AB The title compds. [I; B = monocyclic or bicyclic alkyl, aryl, etc.; R3 = H, halo, NO2. etc.; n = 1-3; P = (CH2)n (wherein n = 0-2), alkene, alkyne, etc.; A = (un)substituted 5-7 membered aliphatic ring; X1, X2 = N, C, where a ring substituent on ring A is a oxo group that is preferably adjacent a ring N atom; Y = SO2, CO; Z = CONHOH, Y = CO and Q = CR6R7, CR6R7CH2, NR6, NR6CH2 (wherein R6 = H, alkyl, aralkyl, etc.; R7 = H, alkyl; R7 together with R6 forms a carbocyclic or heterocyclic spiro 5-7 membered ring, the latter containing at least one heteroatom selected from N, O, S); Z = CONHOH, Y = SO2 and Q = CR6R7, CR6R7CH2; Z = N(OH)CHO and Q = CHR6, CHR6CH2, NR6CH2; R1 = H, alkyl, cycloalkyl, etc.; R2 = H, alkyl, aryl, etc.], useful as metalloproteinase inhibitors (no data), especially as inhibitors of MMP 13, in treating arthritis and atherosclerosis, were prepared E.g., a multi-step synthesis of the title piperazine II was given. Compds. I are effective at 0.5-30 mg/kg/day.

IT 260439-08-5P 260439-96-1P 260440-00-4P
260440-21-9P 260441-00-7P 260441-01-8P
260441-02-9P 260441-03-0P 260441-04-1P
260441-05-2P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of arylpiperazines as metalloproteinase inhibiting agents (MMP))

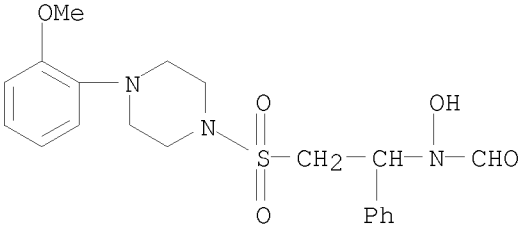
RN 260439-08-5 CAPLUS

CN Formamide, N-hydroxy-N-[1-[[[4-(6-methoxy-4-pyrimidinyl)-1-

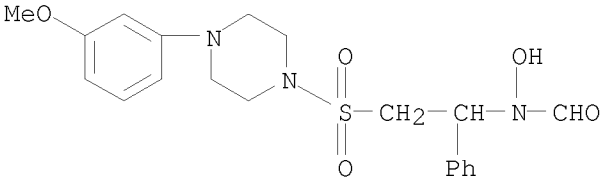
piperazinyl]sulfonyl]methyl]-3-phenylpropyl]- (CA INDEX NAME)



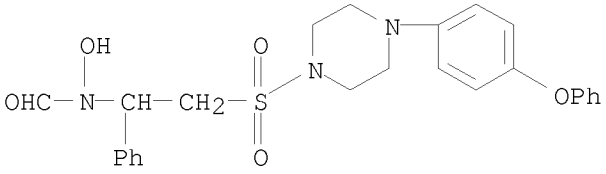
RN 260439-96-1 CAPLUS
CN Formamide, N-hydroxy-N-[2-[[4-(2-methoxyphenyl)-1-piperazinyl]sulfonyl]-1-phenylethyl]- (CA INDEX NAME)



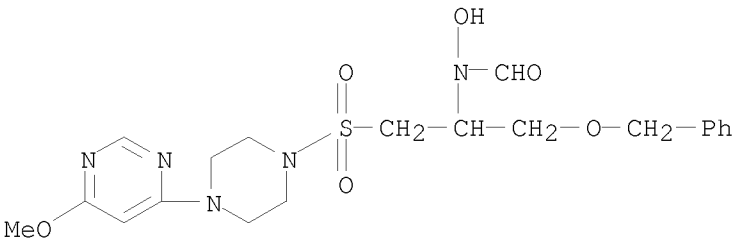
RN 260440-00-4 CAPLUS
CN Formamide, N-hydroxy-N-[2-[[4-(3-methoxyphenyl)-1-piperazinyl]sulfonyl]-1-phenylethyl]- (CA INDEX NAME)



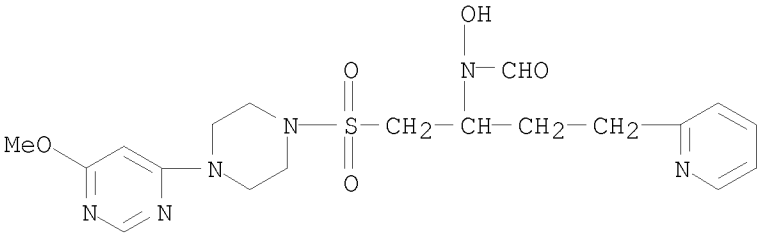
RN 260440-21-9 CAPLUS
CN Formamide, N-hydroxy-N-[2-[[4-(4-phenoxyphenyl)-1-piperazinyl]sulfonyl]-1-phenylethyl]- (CA INDEX NAME)



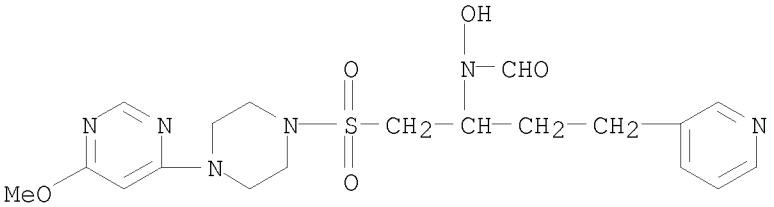
RN 260441-00-7 CAPLUS
CN Formamide, N-hydroxy-N-[1-[[[4-(6-methoxy-4-pyrimidinyl)-1-piperazinyl]sulfonyl]methyl]-2-(phenylmethoxy)ethyl]- (CA INDEX NAME)



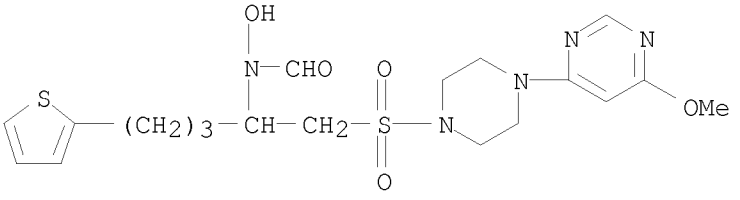
RN 260441-01-8 CAPLUS
CN Formamide, N-hydroxy-N-[1-[[[4-(6-methoxy-4-pyrimidinyl)-1-piperazinyl]sulfonyl]methyl]-3-(2-pyridinyl)propyl]- (CA INDEX NAME)



RN 260441-02-9 CAPLUS
CN Formamide, N-hydroxy-N-[1-[[[4-(6-methoxy-4-pyrimidinyl)-1-piperazinyl]sulfonyl]methyl]-3-(3-pyridinyl)propyl]- (CA INDEX NAME)

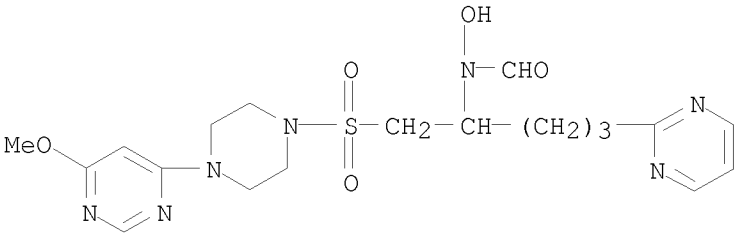


RN 260441-03-0 CAPLUS
CN Formamide, N-hydroxy-N-[1-[[[4-(6-methoxy-4-pyrimidinyl)-1-piperazinyl]sulfonyl]methyl]-4-(2-thienyl)butyl]- (CA INDEX NAME)

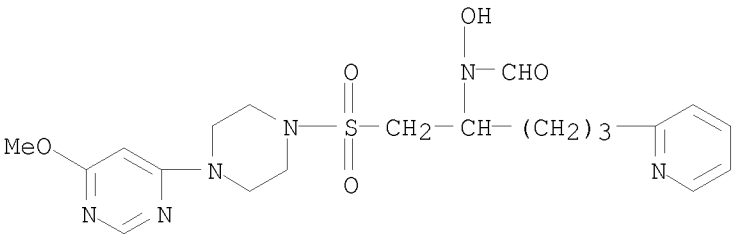


RN 260441-04-1 CAPLUS
CN Formamide, N-hydroxy-N-[1-[[[4-(6-methoxy-4-pyrimidinyl)-1-

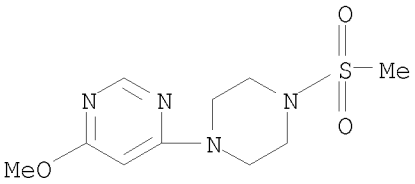
piperazinyl]sulfonyl]methyl]-4-(2-pyrimidinyl)butyl]- (CA INDEX NAME)



RN 260441-05-2 CAPLUS
CN Formamide, N-hydroxy-N-[1-[[[4-(6-methoxy-4-pyrimidinyl)-1-piperazinyl]sulfonyl]methyl]-4-(2-pyridinyl)butyl]- (CA INDEX NAME)



IT 260441-60-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of arylpiperazines as metalloproteinase inhibiting agents (MMP))
RN 260441-60-9 CAPLUS
CN Pyrimidine, 4-methoxy-6-[4-(methylsulfonyl)-1-piperazinyl]- (CA INDEX NAME)

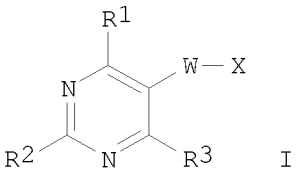


REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 13 OF 22 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:271340 CAPLUS
DOCUMENT NUMBER: 130:296691
TITLE: Preparation of substituted pyrimidines for the treatment of neurodegenerative or neurological disorders of the central nervous system
INVENTOR(S): Kelley, James L.; Krenitsky, Thomas A.; Beauchamp, Lilia M.
PATENT ASSIGNEE(S): Krenitsky Pharmaceuticals Inc., USA
SOURCE: PCT Int. Appl., 74 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9919305	A2	19990422	WO 1998-US21517	19981013 <--
WO 9919305	A3	19990624		
W: AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, CZ, DE, DE, DK, DK, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2305255	A1	19990422	CA 1998-2305255	19981013 <--
AU 9896939	A	19990503	AU 1998-96939	19981013 <--
EP 1025091	A1	20000809	EP 1998-951046	19981013 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2001519416	T	20011023	JP 2000-515878	19981013 <--
US 6440965	B1	20020827	US 2000-529559	20000414 <--
PRIORITY APPLN. INFO.:			US 1997-62339P P	19971015
			WO 1998-US21517 W	19981013

OTHER SOURCE(S): MARPAT 130:296691
GI



I

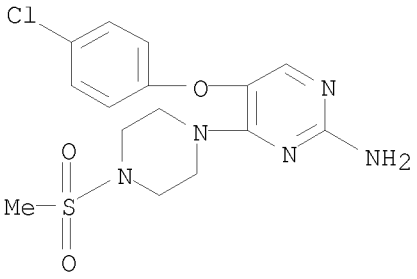
AB The title compds. [I; W = O, CH2, CH2CH2, OCH2, CH2CH2CH2, a bond; R1 = hydroxyalkyloxyalkylamino, dialkylamino, morpholino, etc.; R2 = H, halo, N3, etc.; R3 = H, CF3, alkyl, etc.; X = (un)substituted C6-10 aryl or heteroaryl] and their salts, useful in therapy, particularly in the

treatment of neurodegenerative or other neurol. disorders of the central such as Alzheimer's disease, peripheral neuropathy and senile dementia (no data), were prepared and formulated. E.g., treatment of oxalyl chloride with diisopropylformamide in CH2Cl2 followed by addition of 5-(4-chlorophenoxy)isocytosine, and reaction of the intermediate chloropyrimidine with piperazine afforded 76% I [W = O; X = 4-ClC6H4; R1 = piperazino; R2 = NH2; R3 = H]. Compds. I are effective at 30-800 mg/kg/day when administered by injection.

IT 223435-13-0P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of substituted pyrimidines for the treatment of neurodegenerative or neurol. disorders of the central nervous system)

RN 223435-13-0 CAPLUS

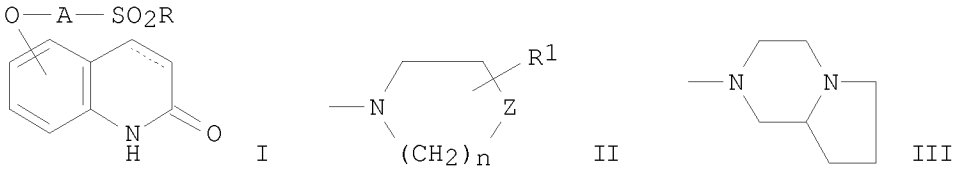
CN 2-Pyrimidinamine, 5-(4-chlorophenoxy)-4-[4-(methylsulfonyl)-1-piperazinyl]- (CA INDEX NAME)



L4 ANSWER 14 OF 22 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:675480 CAPLUS
DOCUMENT NUMBER: 130:10637
TITLE: Carbostyril compounds having sulfonamide linkage for treatment of thrombotic and atherosclerotic diseases
INVENTOR(S): Koga, Yasuo; Kinohara, Yoshihito; Okada, Minoru; Nishi, Takao; Inoue, Yoshihiro; Kimura, Ikuo; Hidaka, Hiroyoshi
PATENT ASSIGNEE(S): Otsuka Pharmaceutical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 24 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10279562	A	19981020	JP 1997-86267	19970404 <--

PRIORITY APPLN. INFO.: JP 1997-86267 19970404
OTHER SOURCE(S): MARPAT 130:10637
GI

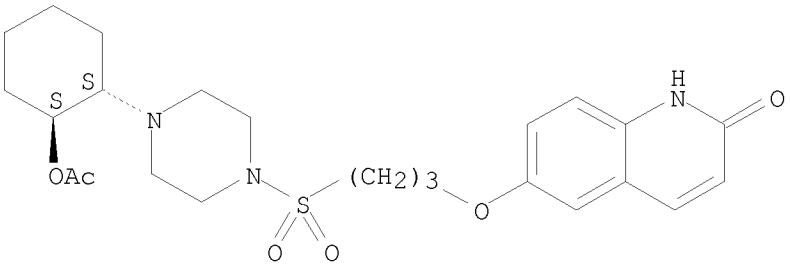


AB The compds. I [A = lower alkylene; R = heterocyclyl II [Z = O, N, CH2; n = 1, 2; R1 = cycloalkyl which may be substituted with OH or lower alkanoyloxy, OH, lower phenylalkyl, lower alkanoyloxy, lower alkanoyloxy-lower alkyl, lower (hydroxy)alkyl, pyridyl, (lower alkyl)aminocarbonyl, (lower alkyl)aminoalkyl], pyrrolopiperazinyl III; bond between positions 3 and 4 is single or double] are prepared I show antithrombogenic and intimal thickening-preventive effects and are useful for treatment of thrombotic diseases and atherosclerotic diseases, e.g. cerebral infarction, myocardial infarction, diabetic complications, restenosis after PTCA, etc. I [A = (CH2)4, R = II (Z = N, n = 2, R1 = trans-2-hydroxycyclohexyl), bond between positions 3 and 4 = double bond] showed significantly suppressed balloon injury-induced intimal thickening in rats. Pharmaceutical prepns. of I were also formulated.

IT 215782-12-0P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of carbostyril compds. having sulfonamide linkage for treatment of thrombotic and atherosclerotic diseases)

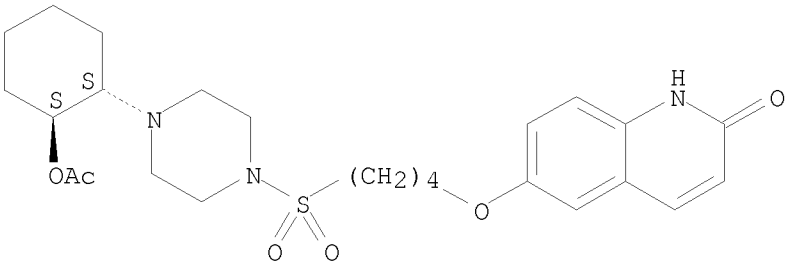
RN 215782-12-0 CAPLUS
CN 2-Quinolinone, 6-[3-[[4-[(1R,2R)-2-(acetyloxy)cyclohexyl]-1-piperazinyl]sulfonyl]propoxy]-1,2-dihydro-, rel- (CA INDEX NAME)

Relative stereochemistry.



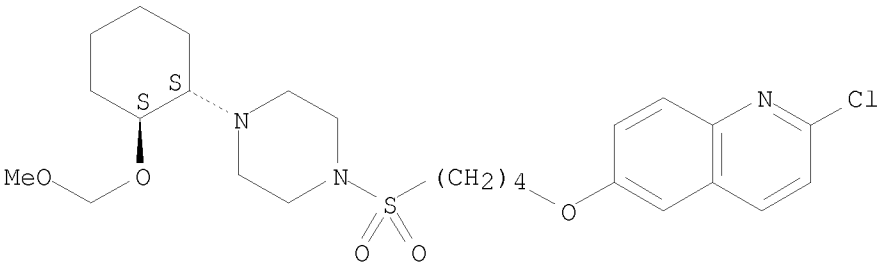
IT 215781-89-8
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preparation of carbostyril compds. having sulfonamide linkage for treatment of thrombotic and atherosclerotic diseases)
RN 215781-89-8 CAPLUS
CN 2-Quinolinone, 6-[4-[[4-[(1R,2R)-2-(acetyloxy)cyclohexyl]-1-piperazinyl]sulfonyl]butoxy]-1,2-dihydro-, rel- (CA INDEX NAME)

Relative stereochemistry.



IT 215781-95-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of carbostyril compds. having sulfonamide linkage for treatment of thrombotic and atherosclerotic diseases)
RN 215781-95-6 CAPLUS
CN Quinoline, 2-chloro-6-[4-[[4-[(1R,2R)-2-(methoxymethoxy)cyclohexyl]-1-piperazinyl]sulfonyl]butoxy]-, rel- (CA INDEX NAME)

Relative stereochemistry.

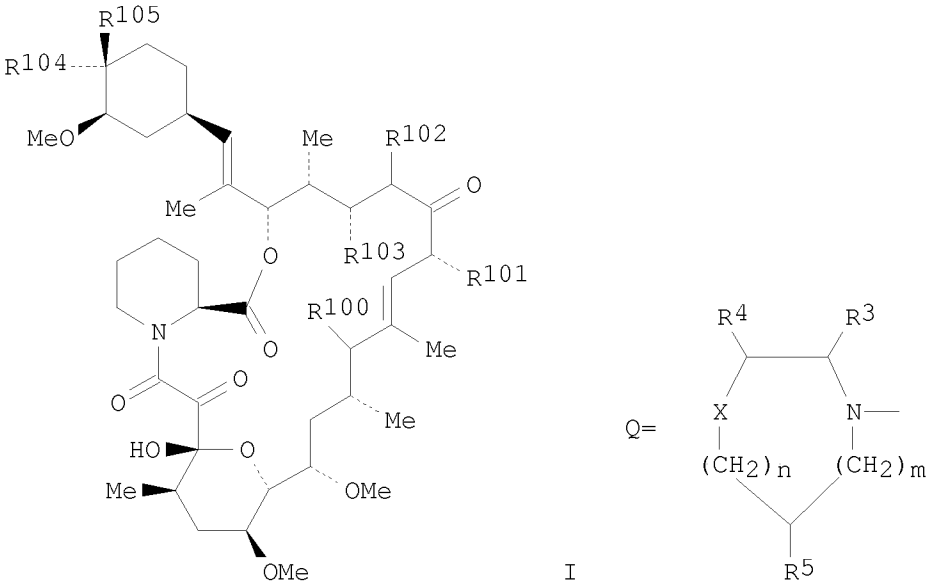


L4 ANSWER 15 OF 22 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1995:647968 CAPLUS
DOCUMENT NUMBER: 123:55589
ORIGINAL REFERENCE NO.: 123:10003a,10006a
TITLE: Substituted alicyclic amine-containing macrocyclic immunomodulators
INVENTOR(S): Kawai, Megumi; Luly, Jay R.
PATENT ASSIGNEE(S): Abbott Laboratories, USA
SOURCE: PCT Int. Appl., 73 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 18
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
WO 9421254	A1	19940929	WO 1994-US2684	19940311	<--
W: CA, JP					
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE					
CA 2156064	A1	19940929	CA 1994-2156064	19940311	<--
EP 690713	A1	19960110	EP 1994-910921	19940311	<--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE					
JP 08507788	T	19960820	JP 1994-521134	19940311	<--
US 5530119	A	19960625	US 1994-341255	19941117	<--
US 5561139	A	19961001	US 1995-419784	19950411	<--
US 5561140	A	19961001	US 1995-419799	19950411	<--
US 5541193	A	19960730	US 1995-466302	19950606	<--

PRIORITY APPLN. INFO.:	US 1993-32958	A	19930317
	US 1993-99975	A	19930730
	US 1991-755208	B2	19910905
	US 1993-100512	A1	19930730
	WO 1994-US2684	W	19940311
	US 1994-212473	B1	19940314
	US 1994-341255	A3	19941117
	US 1994-343266	A3	19941121

OTHER SOURCE(S): MARPAT 123:55589
GI



I

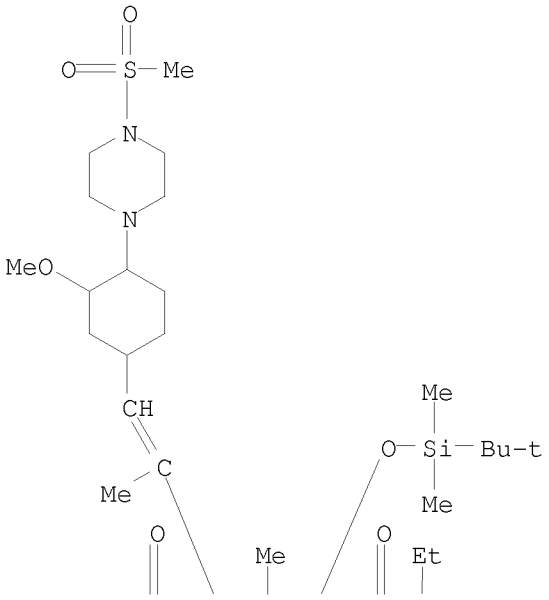
AB The preparation of ascomycin and FK-506 analogs I [R100 = H, OH, halogen, OR13, OR14, R101 = Me, Et, allyl, Pr, R102 = H, R103 = H, OH, R102R103 = bond, R104 , R105 = H, Q, X = S(O)s, s = 0-2, NR1, CR2R2', R1 = H, alkyl, cycloalkylalkyl, etc., R2, R2' = H, OH, amidoalkyl, etc., R3, R4, R5 = H, alkyl, haloalkyl, etc., m, n = 0-2, R13 = PO(OH)O-M+, SO3-M+, CO(CH2)mCOO-M+, M+ = inorg., organic counterion, R14 = acyl, C1-C7 alkyl, etc.], and pharmaceutically acceptable salts, esters, amides and prodrugs thereof, as well as pharmaceutical compns. containing such compds. and methods of immunomodulative therapy utilizing the same are presented.

IT 164331-43-5P
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and immunomodulator activity of ascomycin and FK-506 analogs)

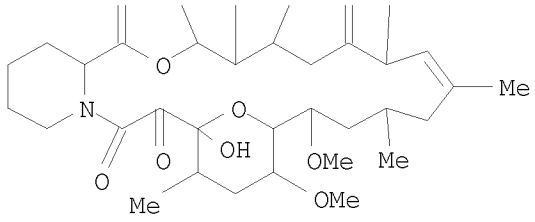
RN 164331-43-5 CAPLUS

CN Piperazine, 1-[4-[2-[5-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-8-ethyl-1,4,5,6,7,8,11,12,13,14,15,16,17,18,19,20,21,23,24,25,26,26a-docosahydro-19-hydroxy-14,16-dimethoxy-4,10,12,18-tetramethyl-1,7,20,21-tetraoxo-15,19-epoxy-3H-pyrido[2,1-c][1,4]oxaazacyclotricosin-3-yl]-1-propenyl]-2-methoxycyclohexyl]-4-(methylsulfonyl)-, [3S-[3R*[E(1R*,2S*,4S*)],4R*,5R*,8S*,9E,12R*,14R*,15S*,16R*,18S*,19S*,26aR*]]- (9CI) (CA INDEX NAME)

PAGE 1-A



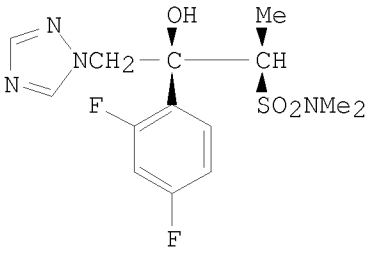
PAGE 2-A



L4 ANSWER 16 OF 22 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1993:124544 CAPLUS
DOCUMENT NUMBER: 118:124544
ORIGINAL REFERENCE NO.: 118:21597a,21600a
TITLE: (aryl)(imidazolyl)alkanesulfonamides and (aryl)(triazolyl)alkanesulfonamides, a method for their preparation and their use as fungicides
INVENTOR(S): Itoh, Katsumi; Okonogi, Kenji; Takasa, Akihiro
PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan
SOURCE: Eur. Pat. Appl., 65 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 510700	A2	19921028	EP 1992-107092	19920425 <--
EP 510700	A3	19921216		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, PT, SE				
JP 05194429	A	19930803	JP 1992-104912	19920423 <--
CA 2067272	A1	19921027	CA 1992-2067272	19920427 <--
US 5389663	A	19950214	US 1993-156925	19931124 <--

PRIORITY APPLN. INFO.: JP 1991-97638 A 19910426
JP 1991-188871 A 19910729
US 1992-875257 B1 19920424
OTHER SOURCE(S): CASREACT 118:124544; MARPAT 118:124544
GI



I

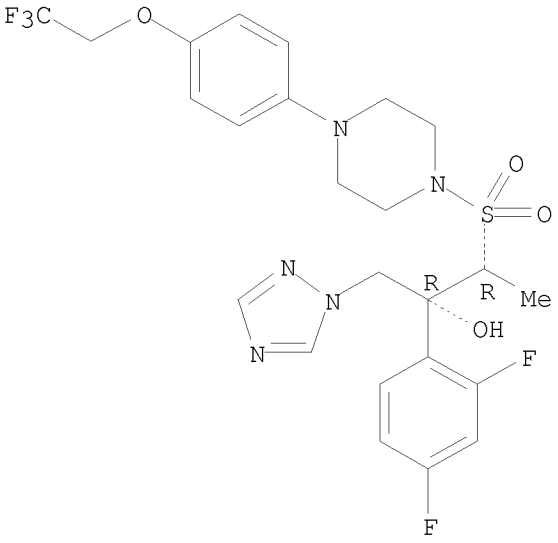
AB Some (aryl)(imidazolyl)alkanesulfonamide derivs. or (aryl)(triazolyl)alkanesulfonamide derivs. are claimed. A process for their preparation is also claimed. Fungicidal compns. containing said compds. are claimed. Oxidation of N,N-dimethyl-[(2R,3R)-3-(3,4-difluorophenyl)-3-hydroxy-4-(1H-1,2,4-triazol-1-yl)-2-butane]sulfenamide gave N,N-dimethyl-[(2R,3R)-3-(3,4-difluorophenyl)-3-hydroxy-4-(1H-1,2,4-triazol-1-yl)-2-butane]sulfonamide (I). I was active in the treatment of a systemic Candida albicans infection in mice.

IT 145942-67-2P 145942-69-4P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of, as fungicide)

<12/04/2007> Erich Leese

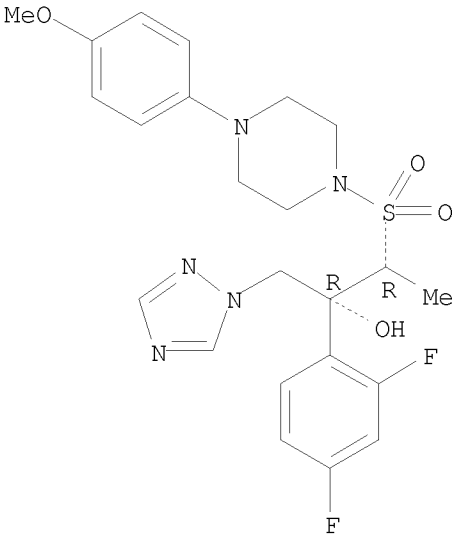
RN 145942-67-2 CAPLUS
CN Piperazine, 1-[[2-(2,4-difluorophenyl)-2-hydroxy-1-methyl-3-(1H-1,2,4-triazol-1-yl)propyl]sulfonyl]-4-[4-(2,2,2-trifluoroethoxy)phenyl]-, [R-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

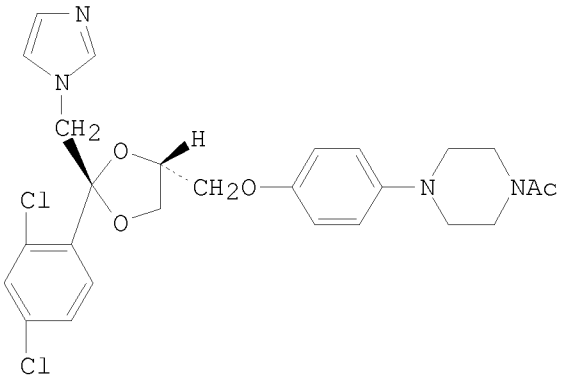


RN 145942-69-4 CAPLUS
CN Piperazine, 1-[[2-(2,4-difluorophenyl)-2-hydroxy-1-methyl-3-(1H-1,2,4-triazol-1-yl)propyl]sulfonyl]-4-(4-methoxyphenyl)-, [R-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



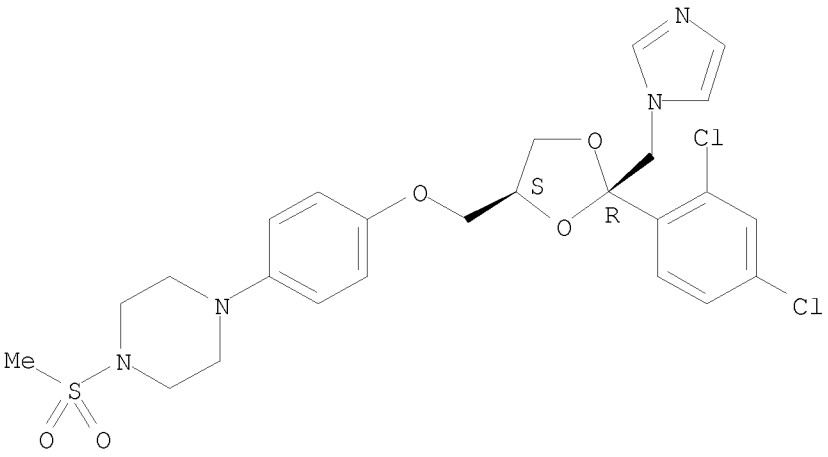
L4 ANSWER 17 OF 22 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1991:185434 CAPLUS
DOCUMENT NUMBER: 114:185434
ORIGINAL REFERENCE NO.: 114:31319a,31322a
TITLE: Synthesis of diastereomeric ketoconazole analogs
AUTHOR(S): Chapman, David R.; Bauer, Ludwig; Waller, Donald P.; Zaneveld, Lourens J. D.
CORPORATE SOURCE: Dep. Med. Chem., Univ. Illinois, Chicago, IL, 60680-6998, USA
SOURCE: Journal of Heterocyclic Chemistry (1990), 27(7), 2063-8
CODEN: JHTCAD; ISSN: 0022-152X
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 114:185434
GI



I

AB Syntheses of trans-isomers of ketoconazole (I) and the corresponding des-acetyl, 1-Me, 1-formyl and 1-methanesulfonyl analogs were investigated. These isomers, along with the corresponding cis-diastereomers were characterized by their carbon-13 NMR spectra.
IT 67915-53-1P 133345-16-1P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and NMR of)
RN 67915-53-1 CAPLUS
CN Piperazine, 1-[4-[[2-(2,4-dichlorophenyl)-2-(1H-imidazol-1-ylmethyl)-1,3-dioxolan-4-yl]methoxy]phenyl]-4-(methylsulfonyl)-, cis- (9CI) (CA INDEX NAME)

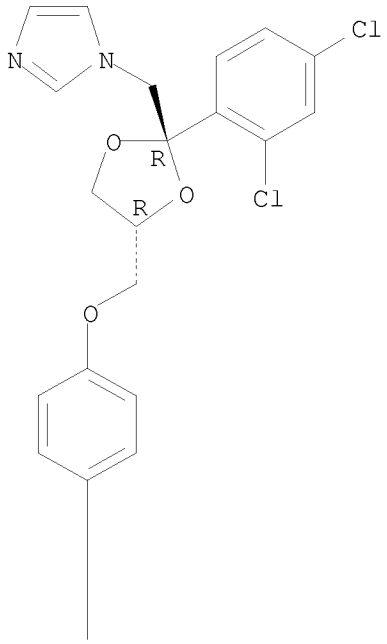
Relative stereochemistry.



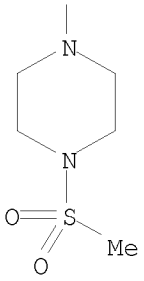
RN 133345-16-1 CAPLUS
CN Piperazine, 1-[4-[[2-(2,4-dichlorophenyl)-2-(1H-imidazol-1-ylmethyl)-1,3-dioxolan-4-yl]methoxy]phenyl]-4-(methylsulfonyl)-, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.

PAGE 1-A



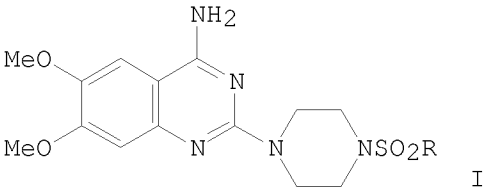
PAGE 2-A



L4 ANSWER 18 OF 22 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1985:437501 CAPLUS
DOCUMENT NUMBER: 103:37501
ORIGINAL REFERENCE NO.: 103:6087a,6090a
TITLE: Pharmacodynamic 2-piperazino-4-amino-6,7-dimethoxyquinazoline derivatives
INVENTOR(S): Konig, Jan; Rajsner, Miroslav; Trcka, Vaclav; Macova, Svetluse
PATENT ASSIGNEE(S): Czech.
SOURCE: Czech., 3 pp.
CODEN: CZXXA9
DOCUMENT TYPE: Patent
LANGUAGE: Czech
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

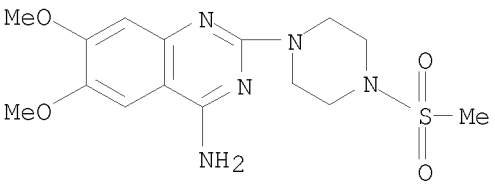
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CS 218022	B1	19830225	CS 1981-6461	19810901 <--

PRIORITY APPLN. INFO.: CS 1981-6461 19810901
OTHER SOURCE(S): CASREACT 103:37501
GI



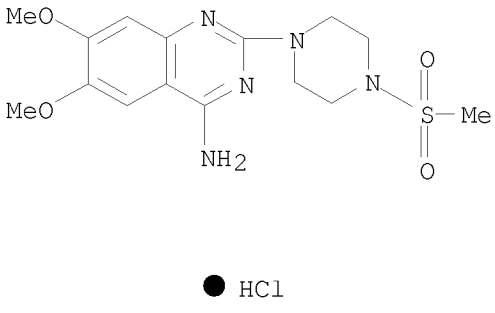
I

AB Four title compds. I (R = Me, Ph, C6H4Cl-4, C6H4Me-4) were prepared by refluxing 2-chloro-4-amino-6,7-dimethoxyquinazoline with 1-alkyl- or 1-arylsulfonylpiperazines in Me2CH(CH2)2OH and converted to crystalline HCl salts. I (R = Me) and I (R = Ph) had at 3-5 mg/kg per os marked hypotensive effects in mice, rats, and monkeys with exptl. hypertension.
IT 97131-43-6P 97131-44-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 97131-43-6 CAPLUS
CN Piperazine, 1-(4-amino-6,7-dimethoxy-2-quinazolinyl)-4-(methylsulfonyl)- (9CI) (CA INDEX NAME)



RN 97131-44-7 CAPLUS
CN Piperazine, 1-(4-amino-6,7-dimethoxy-2-quinazolinyl)-4-(methylsulfonyl)-,

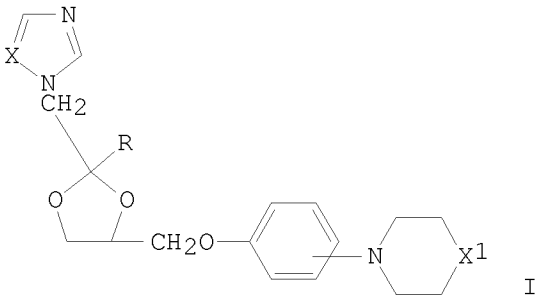
monohydrochloride (9CI) (CA INDEX NAME)



L4 ANSWER 19 OF 22 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1983:126107 CAPLUS
DOCUMENT NUMBER: 98:126107
ORIGINAL REFERENCE NO.: 98:19219a,19222a
TITLE: 1-(1,3-Dioxolan-2-ylmethyl)-1H-1,2,4-triazoles and compositions
INVENTOR(S): Heeres, Jan; Backx, Leo J. J.; Mostmans, Joseph H.
PATENT ASSIGNEE(S): Janssen Pharmaceutica N. V., USA
SOURCE: U.S., 22 pp. Cont. of U.S. Ser. No. 1,614, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4358449	A	19821109	US 1980-351671	19800215 <--
US 4144346	A	19790313	US 1977-853728	19771121 <--
BE 863382	A2	19780727	BE 1978-184676	19780127 <--
ZA 7800548	A	19790926	ZA 1978-548	19780130 <--
HU 26671	A2	19830928	HU 1981-149	19780130 <--
HU 184842	B	19841029		

PRIORITY APPLN. INFO.: US 1977-764263 A2 19770131
US 1977-853728 A3 19771121
US 1979-1614 A1 19790108
OTHER SOURCE(S): CASREACT 98:126107; MARPAT 98:126107
GI



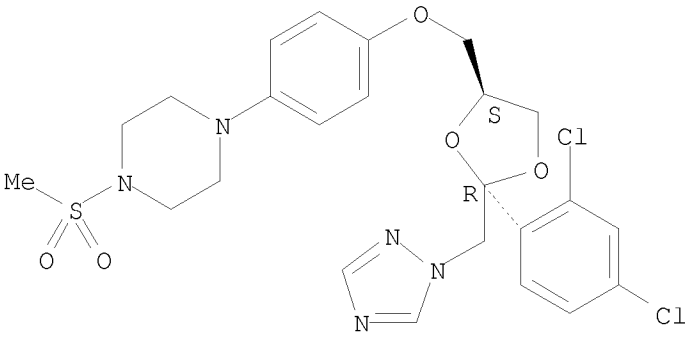
I

AB The bactericidal and fungicidal title compds. I [R = (un)substituted phenyl; X = CH, N; X1 = CH2, O, (un)substituted imino] and their pharmaceutic salts were prepared Thus, acetylating 4-piperazinophenol-2HBr and then treating with cis-2-(2,4-dichlorophenyl)-2-(1H-imidazol-1-ylmethyl)-1,3-dioxolan-4-ylmethyl methanesulfonate followed by deacylation gave cis-I (R = 2,4-Cl2C6H4, X = CH, X1 = NH) (II). The ED50 of II against crop candidosis in turkeys was 125 mg/kg of feed.
IT 67915-36-0P 67915-53-1P 67915-54-2P
67915-55-3P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and fungicidal activity of)

<12/04/2007> Erich Leese

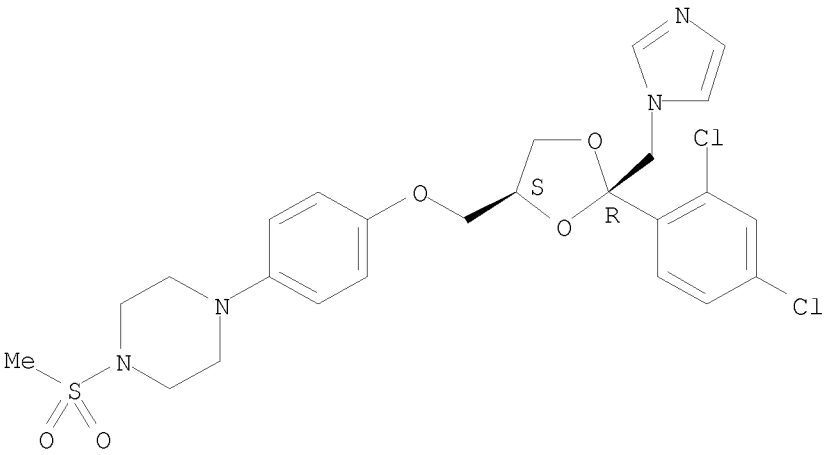
RN 67915-36-0 CAPLUS
CN Piperazine, 1-[4-[[2-(2,4-dichlorophenyl)-2-(1H-1,2,4-triazol-1-ylmethyl)-1,3-dioxolan-4-yl]methoxy]phenyl]-4-(methylsulfonyl)-, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



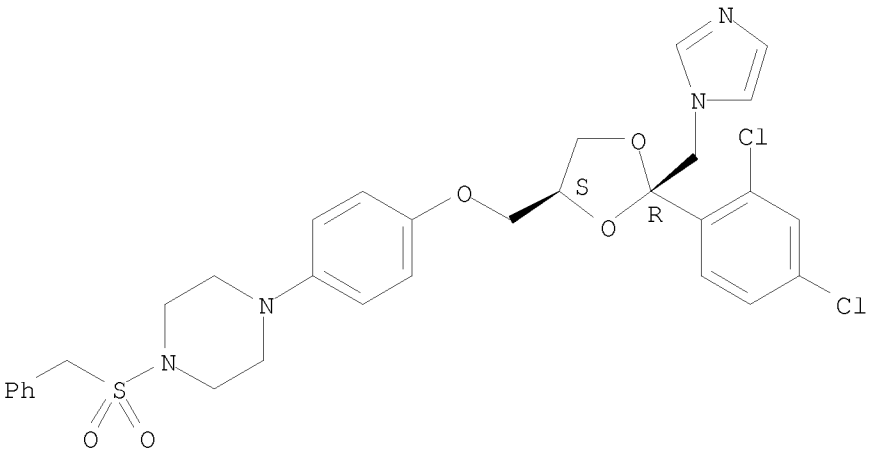
RN 67915-53-1 CAPLUS
CN Piperazine, 1-[4-[[2-(2,4-dichlorophenyl)-2-(1H-imidazol-1-ylmethyl)-1,3-dioxolan-4-yl]methoxy]phenyl]-4-(methylsulfonyl)-, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



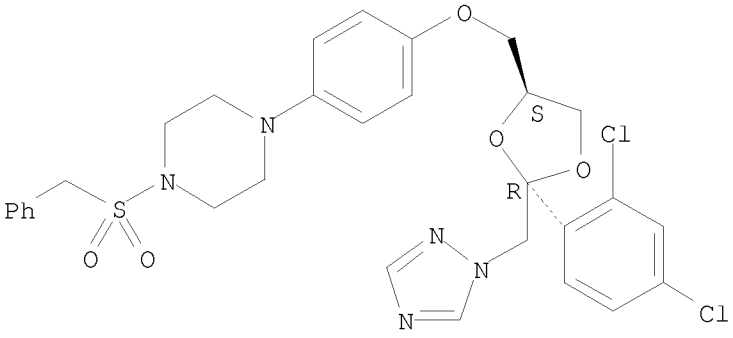
RN 67915-54-2 CAPLUS
CN Piperazine, 1-[4-[[2-(2,4-dichlorophenyl)-2-(1H-imidazol-1-ylmethyl)-1,3-dioxolan-4-yl]methoxy]phenyl]-4-[(phenylmethyl)sulfonyl]-, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 67915-55-3 CAPLUS
CN Piperazine, 1-[4-[[2-(2,4-dichlorophenyl)-2-(1H-1,2,4-triazol-1-ylmethyl)-1,3-dioxolan-4-yl]methoxy]phenyl]-4-[(phenylmethyl)sulfonyl]-, cis- (9CI) (CA INDEX NAME)

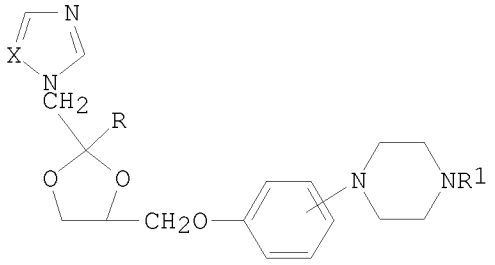
Relative stereochemistry.



L4 ANSWER 20 OF 22 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1980:620771 CAPLUS
DOCUMENT NUMBER: 93:220771
ORIGINAL REFERENCE NO.: 93:35255a,35258a
TITLE: Fungicidal and bactericidal[4-(piperazin-1-ylphenyloxymethyl)-1,3-dioxolan-2-ylmethyl]-1H-imidazoles and -1H-1,2,4-triazole derivatives
INVENTOR(S): Heeres, Jan; Mostmans, Joseph
PATENT ASSIGNEE(S): Janssen Pharmaceutica N. V., Belg.
SOURCE: Eur. Pat. Appl., 68 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE	
EP 6722	A1	19800109	EP 1979-301151		19790615	<--
EP 6722	B1	19840905				
R: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE						
AT 9227	T	19840915	AT 1979-301151		19790615	<--
JP 63045389	B	19880909	JP 1979-82739		19790702	<--
US 4503055	A	19850305	US 1981-306267		19810928	<--
PRIORITY APPLN. INFO.:			US 1978-921380		19780703	
			US 1979-23807		19790326	
			EP 1979-301151	A	19790615	

OTHER SOURCE(S): CASREACT 93:220771; MARPAT 93:220771
GI



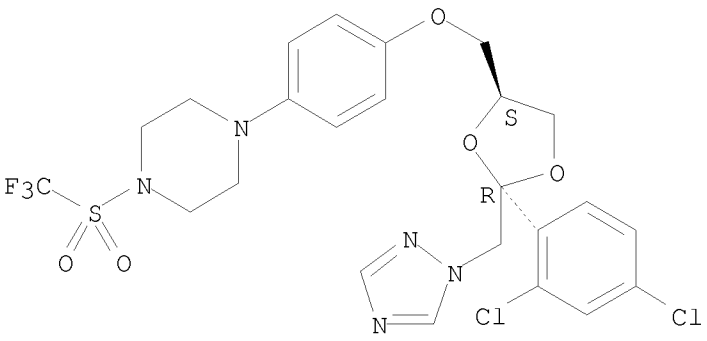
I

AB Approx. 100 title compds. I [R = (substituted) Ph, thienyl, or halothienyl; R1 = alkylsulfonyl, CF3SO2, alkyl or alkenyl substituted by CN, (substituted) NH2, N heterocyclyl, aryl, or aryloxy, or R1 = CnH2nC(X1)R2, where R2 = H, (substituted) alkyl, alkoxy, (substituted) NH2, etc., X1 = O or S, n = 0-6; X = CH or N] were prepared by several procedures. Thus, treatment of cis-1-[4-[[2-(2,4-dichlorphenyl)-2-(1H-imidazol-1-ylmethyl)-1,3-dioxolan-4-yl]methoxy]phenyl]piperazine with ClCH2CO2Et and K2CO3 in Me2SO gave cis-I (R = 2,4-Cl2C6H3, R1 = CO2CH2CO2Et, X = CH), which had ED50 2.5 mg/kg (p.o) for vaginal candidosis in rats and ED50 31 mg/kg (in feed) for crop candidosis in turkeys.

IT 75049-35-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 75049-35-3 CAPLUS
CN Piperazine, 1-[4-[[2-(2,4-dichlorophenyl)-2-(1H-1,2,4-triazol-1-ylmethyl)-1,3-dioxolan-4-yl]methoxy]phenyl]-4-[(trifluoromethyl)sulfonyl]-, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.

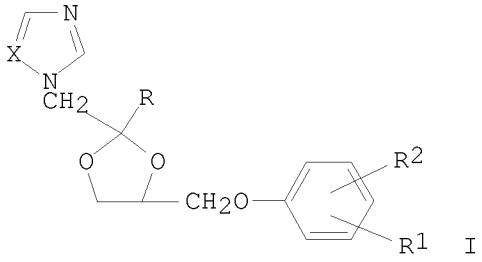


L4 ANSWER 21 OF 22 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1978:580014 CAPLUS
DOCUMENT NUMBER: 89:180014
ORIGINAL REFERENCE NO.: 89:27963a,27966a
TITLE: Fungicidal and bactericidal 1-(1,3-dioxolan-2-ylmethyl)-1H-imidazoles and -1H-1,2,4-triazoles and their salts
INVENTOR(S): Heeres, Jan; Backx, Leo J. J.; Mostmans, Joseph H.
PATENT ASSIGNEE(S): Janssen Pharmaceutica N. V., Belg.
SOURCE: Ger. Offen., 72 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

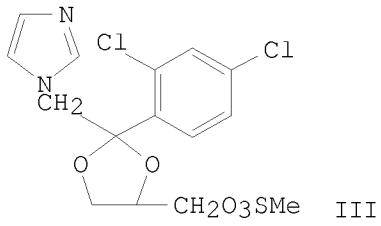
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
DE 2804096	A1	19780803	DE 1978-2804096	19780131	<--
DE 2804096	C2	19900517			
US 4144346	A	19790313	US 1977-853728	19771121	<--
GB 1594859	A	19810805	GB 1977-53851	19771223	<--
ES 465981	A1	19790716	ES 1978-465981	19780113	<--
CA 1094559	A1	19810127	CA 1978-295761	19780126	<--
BE 863382	A2	19780727	BE 1978-184676	19780127	<--
DK 7800426	A	19780801	DK 1978-426	19780130	<--
DK 158042	B	19900319			
DK 158042	C	19900813			
FI 7800294	A	19780801	FI 1978-294	19780130	<--
FI 63398	B	19830228			
FI 63398	C	19830610			
NO 7800335	A	19780801	NO 1978-335	19780130	<--
NO 148643	B	19830808			
NO 148643	C	19831116			
SE 7801088	A	19780801	SE 1978-1088	19780130	<--
SE 439773	B	19850701			
SE 439773	C	19851010			
NL 7801048	A	19780802	NL 1978-1048	19780130	<--
NL 188578	B	19920302			
NL 188578	C	19920803			
JP 53095973	A	19780822	JP 1978-8417	19780130	<--
JP 62057634	B	19871202			
FR 2378778	A1	19780825	FR 1978-2564	19780130	<--
FR 2378778	B1	19810724			
ZA 7800548	A	19790926	ZA 1978-548	19780130	<--
SU 786899	A3	19801207	SU 1978-2570553	19780130	<--
PL 113973	B1	19810131	PL 1978-204348	19780130	<--
HU 19968	A2	19810528	HU 1978-JA808	19780130	<--
HU 177646	B	19811128			
IL 53923	A	19810629	IL 1978-53923	19780130	<--
AT 7800636	A	19810915	AT 1978-636	19780130	<--
AT 366683	B	19820426			
HU 26671	A2	19830928	HU 1981-149	19780130	<--
HU 184842	B	19841029			
AU 7832850	A	19790809	AU 1978-32850	19780131	<--
AU 521329	B2	19820325			
CS 194833	B2	19791231	CS 1978-651	19780131	<--

CH 644118	A5	19840713	CH 1978-1058		19780131 <--
US 4223036	A	19800916	US 1979-1612		19790108 <--
US 4335125	A	19820615	US 1979-1613		19790108 <--
PRIORITY APPLN. INFO.:			US 1977-764263	A	19770131
			US 1977-853728	A	19771121

GI



I



III

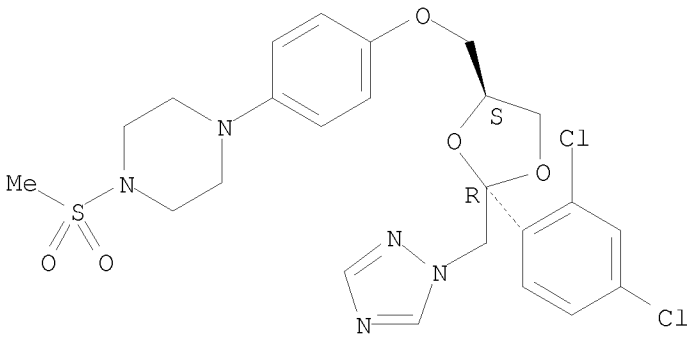
AB The title compds. I (X = N, CH; R = Ph, optionally substituted by 1-3 halogen, lower alkyl, alkoxy; R1 = NCS, NH2, substituted amino, carbamate, thiocarbamate, ureido, thioureido, heterocyclic amino; R2 = H, NO2) were prepared Thus I (X = CH, R = 2,4-Cl2C6H3, R1 = 4-NHBz, R2 = H; II) was obtained in 51% yield by treating III with 4-HOC6H4NHBz. II was effective against vaginal candidiasis in rats at 2 + 5 mg/kg orally.

IT 67915-36-0P 67915-53-1P 67915-54-2P
67915-55-3P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and fungicidal activity of)

RN 67915-36-0 CAPLUS

CN Piperazine, 1-[4-[[2-(2,4-dichlorophenyl)-2-(1H-1,2,4-triazol-1-ylmethyl)-1,3-dioxolan-4-yl]methoxy]phenyl]-4-(methylsulfonyl)-, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.

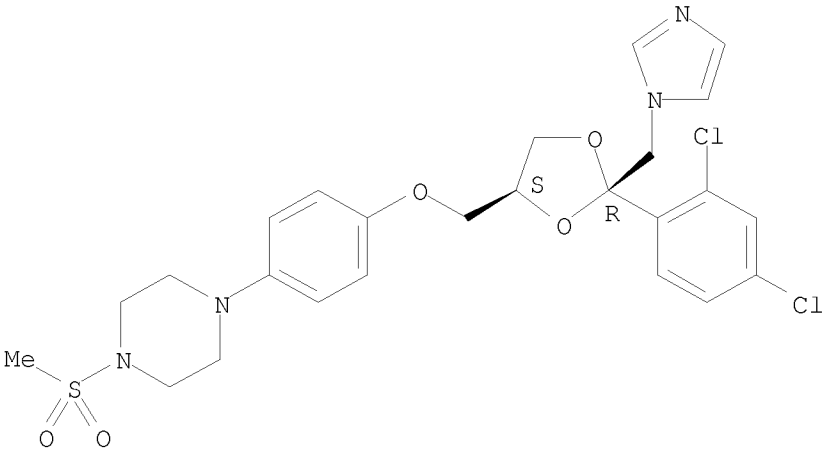


RN 67915-53-1 CAPLUS

CN Piperazine, 1-[4-[[2-(2,4-dichlorophenyl)-2-(1H-imidazol-1-ylmethyl)-1,3-

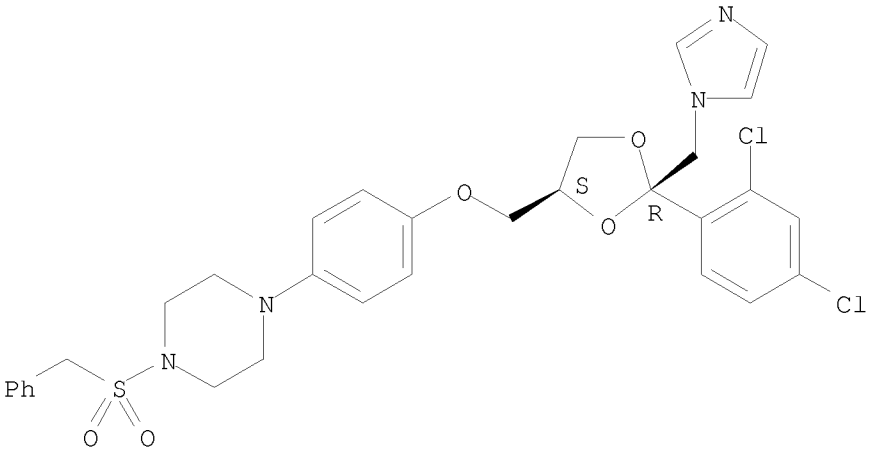
dioxolan-4-yl]methoxy]phenyl]-4-(methylsulfonyl)-, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



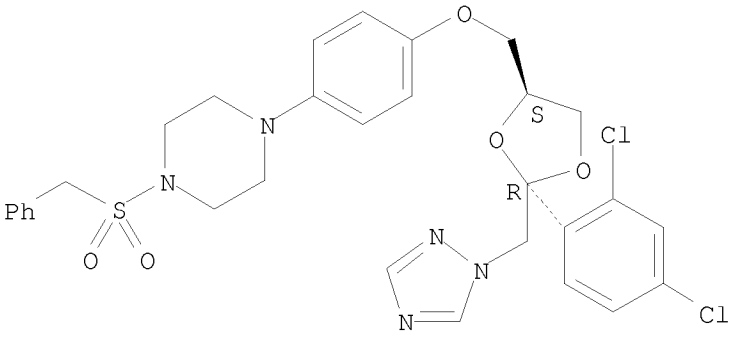
RN 67915-54-2 CAPLUS
CN Piperazine, 1-[4-[[2-(2,4-dichlorophenyl)-2-(1H-imidazol-1-ylmethyl)-1,3-dioxolan-4-yl]methoxy]phenyl]-4-[(phenylmethyl)sulfonyl]-, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 67915-55-3 CAPLUS
CN Piperazine, 1-[4-[[2-(2,4-dichlorophenyl)-2-(1H-1,2,4-triazol-1-ylmethyl)-1,3-dioxolan-4-yl]methoxy]phenyl]-4-[(phenylmethyl)sulfonyl]-, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.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Cl

L4 ANSWER 22 OF 22 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1969:68419 CAPLUS
DOCUMENT NUMBER: 70:68419
ORIGINAL REFERENCE NO.: 70:12809a,12812a
TITLE: Hypotensive and bronchodilatory quinolines, isoquinolines, and quinazolines
INVENTOR(S): Cronin, Timothy H.; Hess, Hans J. E.
PATENT ASSIGNEE(S): Pfizer, Chas., and Co., Inc.
SOURCE: S. African, 114 pp.
CODEN: SFXXAB
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
ZA 6706512		19680306	ZA		<--
DE 1695593			DE		
DE 1795787			DE		
GB 1199768			GB		
US 3517005		19700623	US	19671026	<--
US 3594480		19710720	US	19700312	<--
US 3702849		19721114	US	19700317	<--
US 3812127		19740521	US 1972-259113	19720602	<--

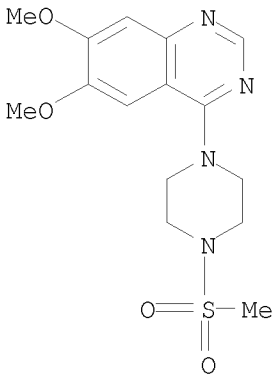
PRIORITY APPLN. INFO.: US 19661031
OTHER SOURCE(S): MARPAT 70:68419
GI For diagram(s), see printed CA Issue.
AB A mixture of 5 g. 2-ethyl-4-chloro-6,7-dimethoxyquinazoline and 7.43 g. piperazine-1-carboxylic acid, iso-Bu ester in 50 ml. absolute EtOH was refluxed 1 hr. and worked up to give 79.5% 4-(2-ethyl-6,7-dimethoxyquinazolin-4-yl)-piperazine-1-carboxylic acid iso-Bu ester, m. 96-7° (hexane); HCl salt m. 218-20°. A solution of di-Et sodiomalonate in HCONMe2 (DMF) was prepared from 11.5 g. 50% NaH-mineral oil dispersion from which the mineral oil had been removed with hexane, 32.0 g. of di-Et malonate, and 100 ml. DMF. To this was added 51.8 g. 2,4-dichloro-6,7-dimethoxy-quinazoline, and the mixture heated at 60° 40 hrs. and worked up to give 80% di-Et (2-chloro-6,7-dimethoxyquinazol-4-yl)malonate (I), m. 160.5-2.5° (EtOH). A suspension of 30 g. I in 300 ml. N NaOH was refluxed 1 hr. and filtered to give 46.5% 2-chloro-4-methyl-6,7-dimethoxyquinazoline (II), m. 183-5° (MeOH). A stainless steel pressure vessel was charged with 4.0 g. II, 40 ml. NH(Et)2, and 40 ml. EtOH, and heated at 130° 3 hrs. and worked up to give 51% 2-diethylamino-4-methyl-6,7-dimethoxyquinazoline, m. 95-7°; HCl salt m. 220-1°. The following III (R = R1 = MeO and R2 = H) were prepared (R3, R4, m.p., and m.p. HCl salt given): H, Me, 206.8° (EtOH), 264-5°; H, Et, 223-4° (MeOH), 261-2°; H, Pr, 207-8° (EtOAc), 246-8°; H, iso-Pr, 248-50° (EtOH), 250° (decomposition); H, cyclopropyl, 237-9° (EtOAc), 253.5-4.0° (decomposition); H, Ph, 236-8°, 259-60°; H, PhCH2, 230-1° (EtOH), 250°; H, 2-phenylethyl, 190-1° (H2O), 239-41°; Et, Et, 112-14°, 224°; Pr, Pr, 147-8° (MeOH-H2O), 207° (decomposition); Me, Me, 158-60°, -; and H, H, 205-7° (H2O), 275°. Also prepared were the following III (R = R1 = MeO, R3 = R4 = H) (R2, m.p., and m.p. HCl salt given): Et, 238-9° (EtOH), 278-80°; CF3, 284-6° (MeOH), 258-9° (decomposition); Et,

-, 262-3° (decomposition); Pr, 224-6° (MeOH), 258-60° (decomposition); iso-Pr, 217-18°, 255-7°; tert-Bu, -, 272-3° (decomposition); Ph, 203-4° (MeOH), 258-60° (decomposition); PhCH2, -, -; and PhEt, -, 270-1° (decomposition). Also prepared were the following III, (R, R1, R2, R3, R4, m.p., and m.p. HCl salt given); CH2:CHO, CH2:CHO, H, H, H, 234-6° (EtOH-Et2O), 278-81°; H, MeO, H, H, H, 270-1° (MeOH), 255-6°; and iso-Pr, iso-Pr, H, H, H, 147-8°, 250-1°. Also prepared were the following IV (R = R1 = MeO), R2 = H) (R3, m.p., and m.p. HCl salt given): H, 150-1° (EtOAc), 299-30°; iso-BuCO, 125-6° (C6H6-hexane), -; Me, 159-60° (CH2Cl2-isoPr2O), 300-1° (decomposition); CH2:CHCH2, 128-30° (isoPr2O), 239-42° (decomposition); Ph, 152.5-60° (MeOH- H2O), 221-3° (decomposition); HOCH2CH2, 155.8° (EtOAc), 230-3.5° (decomposition); 6,7-dimethoxy-4-quinazolyl, 264-5° (CHCl3MeOH), 253-5° (decomposition); OH, 201-2.5° (iso-PrOH), 233° (decomposition); Ac, 186° (iso-PrOH-iso-Pr2O), 224-5° (decomposition); EtO, 150-1° (C6H6-hexane), 216-17°; Me2CHO, 172-3° (C6H6-hexane), 210-11°; BuCO, 130.5-33° (EtOAc-hexane), 209-10°; Me(CH2)6CO, 136-8° (MeOH-H2O), 157-8° (decomposition); Bz, 221-3° (MeOH), 183-5°; CH2:CHCO, 127-9° (C6H6-hexane), 102-4°; 2-furoyl, 159-61° (C6H6-hexane), 222-3°; Me2CONH, 147-8.5° (C6H6-iso-Pr2O), 167-8°; CF3CO, 191-2° (CH2Cl2-iso-Pr2O), 225-6°; CCl3CO, 84-8° (DMF-H2O), 243-4°; MeSO2, 239-40° (CHCl3-MeOH), 256° (decomposition); PhSO2, 186-7° (C6H6), 236-7° (decomposition). Also prepared were 4-(6,7-dimethoxyquinazolin-4-yl)homopiperazine-1-carboxylic acid, m. 146.5-48° (EtOAc) [iso-Bu ester m. 109-12° [(iso-Pr)2O-hexane]]; and the following IV (R = R1 = MeO, R2 = H, R3 = O2CR4) (R4, m.p., and m.p. HCl salt given): Et, 145-7° (C6H6-hexane), 215-16°; Pr, 131-3° (MeOH-H2O), 229° (decomposition); iso-Pr, -, -; Bu, 129-30° (MeOH-H2O), 199-200°; iso-Bu, 151-2° (MeOH), 217°; pentyl, 153-4° (MeOH), 212-12.5° (decomposition); hexyl, 143.5-45° (MeOH-H2O), 187-7.5°; tetrahydrofurfuryl, 139-40° (C6H6-hexane), -; Ph, 154-5° (Me2CO), 231°; benzyl, 132-3.5° (MeOH-H2O), 198-9°; Me2CClCH2, 158-9° (Me2CO- H2O), -; Me2C(OH)CH2, 199-200° (CHCl3-EtAc), -; 2-methyl-2-propenyl, -, 210-13°; and 2-dimethylaminoethyl, 100-4° (EtOAc-hexane), 230-2°. Also prepared were 2-amino-6,7-diisopropoxyquinazoline, m. 147.5-8.5° (HCl salt m. 250-1°); 2-amino-4-methyl-6,7-dimethoxyquinazoline, m. 218-20° [HCl salt m. 282-3° (decomposition)]; and 2-dimethylamino-4-methyl-6,7-dimethoxyquinazoline, m. 131-3° (HCl salt m. 258°). Also prepared were the following 2-(4-substituted-1-piperazinyl)-4-methyl-6,7-dimethoxyquinazoline (substituent, m.p., and m.p. HCl salt given): CO2Et, 153-5°, 247°; and CO2Ph, 201-3°, 237.5-40.0°. Also prepared were the following IV (R = R1 = MeO, R3 = CO2Bu-iso (R2, m.p., and m.p. HCl salt given): Me, 131-2° (MeOH- H2O), 228° (decomposition); CF3, 132-3° (EtOH), 169-71°; Pr, 100-2° (hexane), 202-4°; iso-Pr, 102-4° (hexane), 198-9.5°; tert Bu, 89-91° (hexane), 180-1.5°; Ph, 164-6° (MeOH), 227-8° (decomposition); PhCH2, 62-4° (CH2Cl2-hexane), 198-9°; Ph-CH2CH2, 100-1°, (C6H6-hexane), 190-1°; and H, -, 217° (decomposition). Also prepared were esters of 4-(6,7-dimethoxyquinoline-4-yl)piperazine-1-carboxylic acid (alc. group of ester and m.p. given):

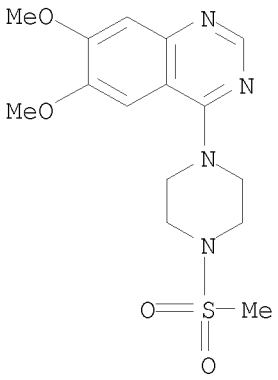
iso-Bu, 172-3° (EtOH); and CH2C(OH)Me2, 172-3° (EtOAc). Also prepared are the following 1-amino-6,7-dimethoxy-isoquinolines (amino group, m.p., and m.p. HCl salt given): iso-PrNH, 138-40° (MeOH), 200-4°; Me2N, 72-5°, 148-51°; and Et2N, 137-8.5° (Me2CO-H2O), 189-91°. Also prepared were the following 1-(4-substituted-1-piperazinyl)-6,7-dimethoxyiso-quinolines (4-substituent, m.p., and m.p. HCl salt given): Me, 163-6° (EtOAc), 220-5°; Ph, 138-41° (MeOH), 222-8°; Ac, 137-8° (CH2Cl2-iso-Pr2O), 157-8° (decomposition); and COEt, 146-7° (CH2Cl2-iso-Pr2O), 135-7° (decomposition). Also prepared were esters of 4-(6,7-dimethoxyisoquinolin-1-yl)piperazine-1-carboxylic acid (alc. group of ester, m.p., and m.p. HCl salt given): CH2CH2Cl, 137.5-38° (MeOH-H2O), 105-6° (decomposition); CHMe2, 155-6° (MeOH), 102-4° (decomposition); CH2CH2Me, 137-8° (MeOH), 120-3° (decomposition); (CH2)2NEt2, 103-4°, (iso-Pr2O), 78-91°; (CH2)2NMe2, 115° (CH2Cl2-iso-Pr2O), 169-72° (decomposition); (CH2)2NH2, 134-7° (EtOAc-hexane), 173-5° (decomposition); (CH2)2OMe, 119-20° (EtOAc-hexane), 103-5° (decomposition); iso-Bu, 130-2° (MeOH), -; Me2C(OH)CH2, 133-4° (EtOAc-hexane), -; and Me2NCH2CH2, 115° (CH2Cl2-iso-Pr2O), -. All title compds. exhibited bronchodilator activity, while III and the 2-aminoquinoxaline derivs. were better hypotensives. Extensive test data were given.

IT 21580-25-6P 21580-26-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 21580-25-6 CAPLUS
CN Piperazine, 1-(6,7-dimethoxy-4-quinazolinyl)-4-(methylsulfonyl)- (8CI) (CA INDEX NAME)



RN 21580-26-7 CAPLUS
CN Piperazine, 1-(6,7-dimethoxy-4-quinazolinyl)-4-(methylsulfonyl)-, hydrochloride (8CI) (CA INDEX NAME)



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L2          740 S L1 FULL

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L3           38 S L2 FULL
L4           22 S L3 AND PY<2005

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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                   -17.60     -17.60

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